# Series 9800 C-Arm Schematic Diagrams

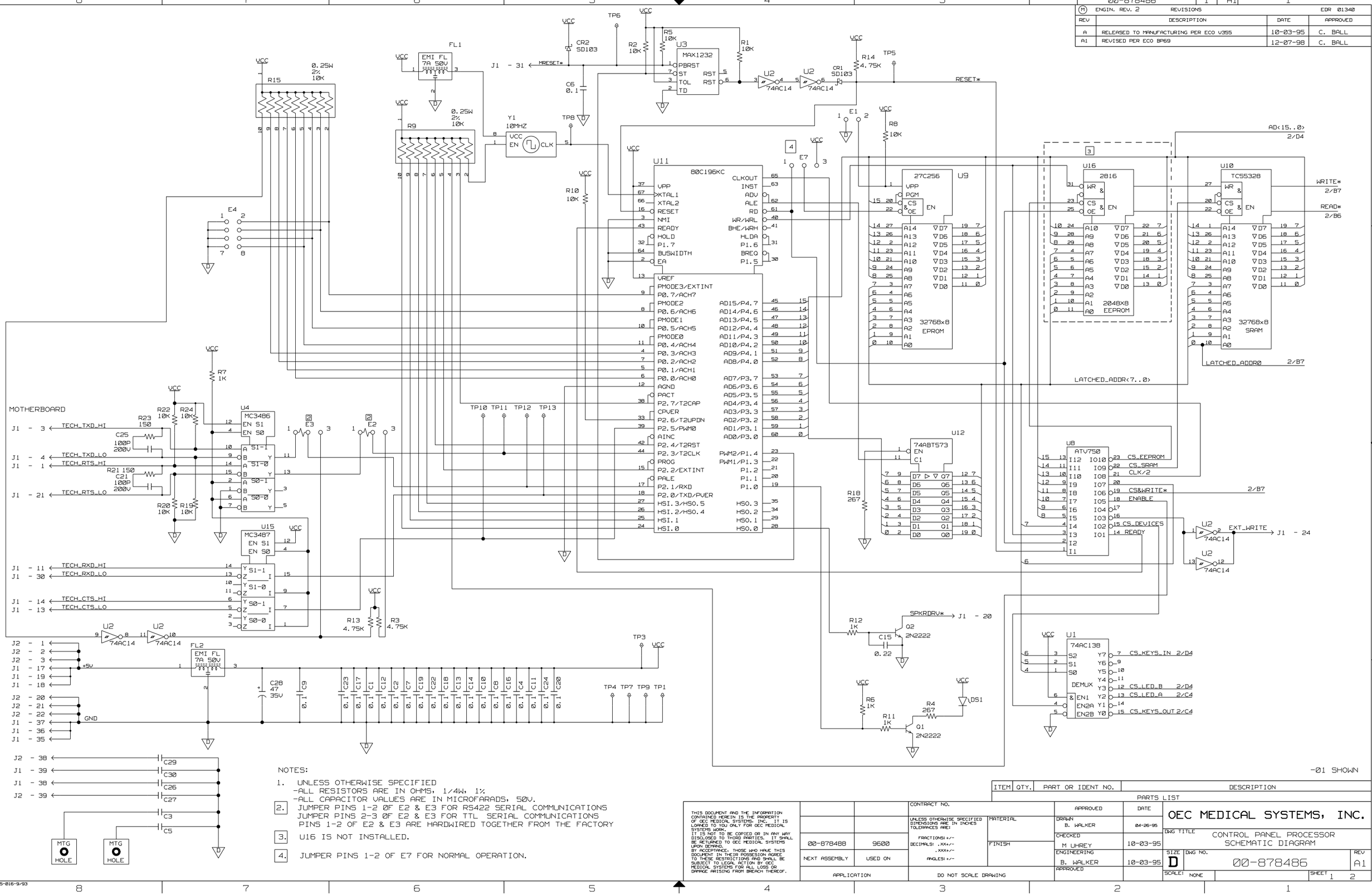
This section provides schematic diagrams for the more complex GE OEC-built electronic modules, devices, and printed circuit boards described in the Series 9800 C-Arm Service Manual. The schematics are arranged in numeric order by drawing number.

Use the following alphabetic list to access a drawing by title. Click on the appropriate title or drawing number to view the drawing.

**Backplane PCB** ..... **00-879362**
**Battery Charger PCB** ..... **00-880304**
**Control Panel Processor PCB** ..... **00-878486**
**Control Panel Processor I/O PCB** ..... **00-880322**
**Filament Driver PCB** ..... **00-879720**
**Fluoro Functions PCB** ..... **00-879099**
**Generator Driver PCB** ..... **00-878906**
**High Voltage Supply Regulator PCB** ..... **00-878727**
**IGBT Snubber PCB** ..... **00-879924**
**Interconnect Diagram** ..... **00-878980**
**Multi-Output Power Supply** ..... **00-879389**
**Power/Motor Relay PCB** ..... **00-879323**
**Power/Signal Interface PCB** ..... **00-879019**
**X-ray Controller PCB** ..... **00-879803**

| DWG NO. | 00-878486 | SHT 1 | REV A1 |
|---|---|---|---|

| M | ENGIN. REV. 2 | REVISIONS | | EDR 01340 |
|---|---|---|---|---|
| REV | DESCRIPTION | | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO V355 | | 10-03-95 | C. BALL |
| A1 | REVISED PER ECO BP69 | | 12-07-98 | C. BALL |




NOTES:

1. UNLESS OTHERWISE SPECIFIED
   -ALL RESISTORS ARE IN OHMS, 1/4W, 1%
   -ALL CAPACITOR VALUES ARE IN MICROFARADS, 50V.
2. JUMPER PINS 1-2 OF E2 & E3 FOR RS422 SERIAL COMMUNICATIONS
   JUMPER PINS 2-3 OF E2 & E3 FOR TTL SERIAL COMMUNICATIONS
   PINS 1-2 OF E2 & E3 ARE HARDWIRED TOGETHER FROM THE FACTORY
3. U16 IS NOT INSTALLED.
4. JUMPER PINS 1-2 OF E7 FOR NORMAL OPERATION.

-01 SHOWN

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | MATERIAL | DRAWN B. WALKER | 04-26-95 |
| 00-878488 | 9600 | | FINISH | CHECKED M UHREY | 10-03-95 |
| NEXT ASSEMBLY | USED ON | | | ENGINEERING B. WALKER | 10-03-95 |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

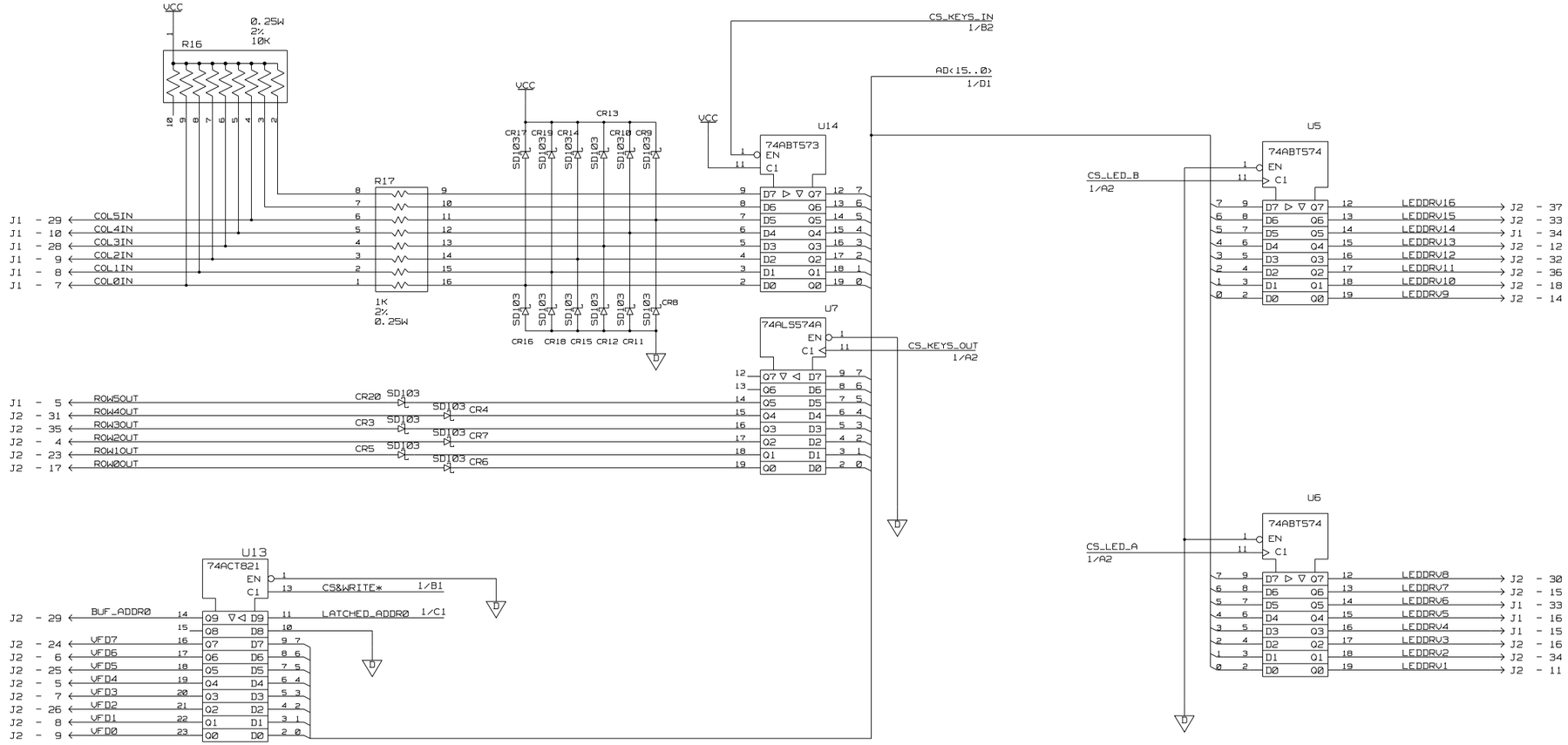
OEC MEDICAL SYSTEMS, INC.

DWG TITLE: CONTROL PANEL PROCESSOR SCHEMATIC DIAGRAM

SIZE D | DWG NO. 00-878486 | REV A1

SCALE: NONE | SHEET 1 2

05-016-9/93




REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C30 | |
| CR20 | |
| E7 | |
| J2 | |
| Q2 | |
| R24 | |
| TP13 | |
| U16 | |
| Y1 | |
| FL2 | |
| LS1 | |
| DS1 | |

| REF DESIGNATIONS | DEVICE | GND | | +5V | UNUSED |
|---|---|---|---|---|---|
| U11 | 80C196 | NOTE 1 | | 1 | |
| U9 | 27C256 | 14 | | 28 | |
| U16 | 2816 | 16 | | 32 | |
| U10 | TC55328 | 14 | | 28 | |
| U12,14 | ABT573 | 10 | | 20 | |
| U5,6 | ABT574 | 10 | | 20 | |
| U8 | PAL22V10 | 12 | | 24 | |
| U4 | MC3486 | 8 | | 16 | |
| U15 | MC3487 | 8 | | 16 | |
| U2 | 74AC14 | 7 | | 14 | |
| U13 | ACT821 | 12 | | 24 | |
| U3 | MAX1232 | 4 | | 8 | |
| U1 | 74138 | 10 | | 20 | |
| U7 | 74ALS574 | 10 | | 20 | |

NOTE 1: PINS 14,36 & 68

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | CONTROL PANEL PROCESSOR SCHEMATIC DIAGRAM | A1 |
| SCALE: NONE | 00-878486 | SHEET 2 |

05-017-9/93

| DWG NO. | SHT | REV |
|---|---|---|
| 00-878727 | 1 | B2 |

| M | ENGIN. REV. 6.1 REVISIONS | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASE TO MANUFACTURING PER ECO AY75 | 3/16/98 | C. BALL |
| A.1 | REVISED PER ECO BK29 | 9/16/98 | C. BALL |
| A.2 | REVISED PER ECO BP59 | 12/07/98 | C. BALL |
| B | REVISED PER ECO BP95 | 12/11/98 | C. BALL |
| B1 | REVISED PER ECO BU83 | 3/24/99 | K. MAHON |
| B2 | REVISED PER ECO CB05A | 7/14/99 | C. BALL |

P1 CONNECTIONS

| PIN | SIGNAL NAME |
|---|---|
| 1,2 | GND |
| 3,4 | POS_15V |
| 5,6 | GND |
| 7,8 | NEG_15V |
| 9,10 | GND |
| 11-14 | POS_5V |
| 15 | GND |
| 16* | ARCNET_SHLD |
| 17* | ARCNET_HI |
| 18* | ARCNET_LO |
| 19* | FRAME_SYNC_SHLD |
| 20* | FRAME_SYNC_HI |
| 21* | FRAME_SYNC_LO |
| 22 | XRAY_ON* |
| 23 | XRAY_ENABLE* |
| 24 | KVP_CNTL |
| 25 | KVP_CNTL_REF |
| 26 | KVP_DRV_A_TOP |
| 27 | KVP_DRV_A_BTM |
| 28 | KVP_DRV_B_TOP |
| 29 | KVP_DRV_B_BTM |
| 30 | KVP_DRV_RTN |
| 31 | SHUTDOWN |
| 32* | ANALOG_RTN |
| 33-35* | NC |
| 36 | FAULT_RST |
| 37-38* | NC |
| 39* | HV_GEN_ON* |
| 40 | INTLK_CMPLT* |
| 41 | FAULT |
| 42* | NC |
| 43 | GND_INTEG* |
| 44 | FIL_DRV_OK* |
| 45-47* | NC |
| 48 | KVP_SEN_POS |
| 49 | KVP_SEN_NEG |
| 50 | LO_MA_SEN_POS |
| 51 | LO_MA_SEN_NEG |
| 52 | HI_MA_SEN_POS |
| 53 | HI_MA_SEN_NEG |
| 54 | LOOP_A |
| 55 | LOOP_B |
| 56-60* | NC |
| 61 | HF_SYNC |
| 62 | V_SLOW_RAMP |
| 63 | X_SLOW_RAMP* |
| 64 | SLOW_RAMP* |
| 65 | FAST_RAMP* |
| 66 | MA_HIGH* |
| 67 | MOD_READY |
| 68 | HI_MA_SEN |
| 69 | HI_MA_SEN_REF |
| 70 | LO_MA_SEN |
| 71 | LO_MA_SEN_REF |
| 72 | KVP_SEN |
| 73 | KVP_SEN_REF |
| 74* | NC |
| 75* | LINE_V_SEN |
| 76* | HICHGMOD |
| 77 | 24V_INTERLOCK |
| 78* | CHRG_I_SEN |
| 79* | CHRG_DISAB |
| 80* | CHRG_REF |
| 81* | CONTACT |
| 82* | PRE_CHRG |
| 83* | SPARE |
| 84-114* | NC |
| 115-16 | POS_5V |
| 117-20 | GND |

* = NOT IMPLEMENTED

-05 SHOWN
-04 INACTIVE
-03 INACTIVE
-02 INACTIVE
-01 INACTIVE

KVP_CNTL FILTER

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C72 | C3, 8, 13 |
| CR24 | |
| DS4 | |
| FL3 | |
| P1 | |
| Q11 | |
| R163 | R9, 17, 76 |
| TP81 | |
| U14 | |

| REF DES | DEVICE | DGND | +5V | AGND | -12V | +12V | UNUSED |
|---|---|---|---|---|---|---|---|
| U9, 10, 13 | AD620A | | | 5 | 4 | 7 | |
| U5, 7, 8 | TL084BCN | | | | 11 | 4 | |
| U3 | LM311 | | | | 4 | 8 | |
| U4, 6 | SW06GP | | | 4 | 5 | 12 | 13 |
| U12 | UC3875N | | | 12, 20 | | 10, 11 | |
| U14 | LM2940-12V | | | 2 | | 3 | |
| U11 | LM2990-12V | | | 2 | 3 | | |
| U1, 2 | 7407 | 7 | 14 | | | | |

NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTOR VALUES ARE IN OHMS, 0.25W, 1%.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 50V.
3. INTERNAL PLANES ARE GND, +12V, -12V, +5V ROUTED ON SIGNAL PLANES.
4. KEYWAY LOCATED BETWEEN PINS 79/80 AND 81/82

| | |
|---|---|
| 00-878727-05 | SCH, PCB, HV SUPPLY REG, 9800 |
| 00-878728-02 | PCB, HV SUPPLY REG, A/F, 9800 |
| 00-878729-50 | SPEC, PERF, PCB, HV SPLY RGLTR, 98 |
| 22-320200-00 | EJTR, PCB, SGL ACTN LVR, .31W, .062 |
| 12-225104-05 | SCR, SEMS SPR, PAN, TRX, 4-40, 3/8, SZC 2 |
| 13-311104-00 | NUT, HEX-LK-EXT-T, 4-40, SST, NA, A-.250 2 |

DRAWING
LAST_MODIFIED=Fri Jul 16 10:44:26 1999
ACTIVE_DASHES=-25

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | |
|---|---|
| | |
| 00-878729 | 9800 |
| NEXT ASSEMBLY | USED ON |
| APPLICATION | |

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS: +/-
DECIMALS: .XX +/-
.XXX +/-
ANGLES: +/-

MATERIAL: NONE
FINISH: NONE

DO NOT SCALE DRAWING

| | APPROVED | DATE |
|---|---|---|
| DRAWN | M WILLCOCKS | 5/31/96 |
| CHECKED | N. NEWBOLD | 6/4/96 |
| ENGINEERING | M WILLCOCKS | 6/4/96 |
| APPROVED | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: SCH, PCB, HV SUPPLY REGULATOR, 9800

SIZE D | DWG NO. 00-878727 | REV B2

SCALE: NONE | SHEET 1 OF 2

05-016-9/93

P1 - 48 KVP_SEN_POS
P1 - 49 KVP_SEN_NEG
TP78 TP60 TP75 TP76 TP21
C59 30P 500V
C60 30P 500V
R144 6.81M
R145 6.81M
R141 191K
R140 1K
R143 10K
R125 499K
R112 15K
R111 10
C41 0.1
C47 0.1
R113 10
R142 10K
C68 0.01 100V
CR17 1N914
CR18 1N914
CR15 1N914
CR16 1N914
U13 AD620A REF
RG1 RG2 V+ V- 7 3 1 8 2 4 5 6
+12V -12V
CONNECT JUMPER FOR HIPOT TEST ONLY
VOLTAGE SENSE FILTER
KVP_SEN_TP
OUT 2D6 1C6
DECAY_SW OUT 1C5
XRAY_ON_R* IN 1D6
R22 10
R16 10
C4 0.1
C7 0.1
U4 SW06
GND DIS V- V+
SWITCH
HALF_KVP
1A7 IN KVP_CNTL_TP
TP7 TP15
R26 10K
R25 10K
R21 10
R20 10
C5 0.1
C6 0.1
U3 LM311
BAL V+ V- BAL/STB
HALF OUTPUT COMPARATOR
1C5 COMP_P
1C5 U7D_INV
TP5 FAST_RAMP_R*
1C7
X_SLOW_RAMP* P1 - 63
TP11 1C5 1D6 EA_INV
R27 10K
V_SLOW_RAMP P1 - 62
SLOW RAMP INPUTS
TP18 KVP_DIF
TP17 DECAY_SLOPE
R36 7.15K
R35 4.75K
R23 CCW 10K 0.5W
R38 10K
R37 10K
TP28 KVP_DIF_INV
2C1 U5 U5PLS
2C2 U5MNS
TL084B
INVERTER
R58 15K
KVP_DIF_AMPL
R80 10
C25 0.1
2A7 2B6 2C5
U8 U8PLS
U8MNS
TL084B
R59 10K
R39 10K
TP45 BLK
R30 10
C15 0.1
AMPLIFIER
INVERTER
R40 10K
TP29 TP61 TP32
LO_MA_SEN_POS P1 - 50
KVP_DIF_AMPL_INV
TP63
LO_MA_SEN_NEG P1 - 51
R123 51.1K
R122 2K
R81 221
R63 CCW 10K 10% 0.5W
R53 3.01K
CR5 1N914
R47 1K
R34 CCW 10K 10% 0.5W
C18 2200P 200V
C26 0.022 100V
CR4 1N914
TP31 TP23
DIFFERENTIATOR
INRUSH CURRENT & VOLTAGE SENSE LOAD COMPENSATION
R108 7.5M
R107 7.5M
TP73 HI_MA_SEN_POS P1 - 52
TP22 R46 10.2K 0.1% U8PLS
TP72 HI_MA_SEN_NEG P1 - 53
R45 10.2K 0.1%
KVP_SEN_INV
R116 51.1K
R117 2K
R160 332
R147 10.2K 0.1%
C70 0.33 2.725V=200MA
R161 332
R146 4.42K
CR10 1N914
CR9 1N914
R99 10.2K 0.1%
R90 7.15K 17.37K TOTAL
COMP_POS
COMP_NEG
CR20 1N914
R149 4.42K
R148 10.2K 0.1%
CR19 1N914
C58 0.1
R85 10
C57 0.1
C28 0.1
TP42
U9 AD620A REF
RG1 RG2 V+ V- 7 3 1 8 2 4 5 6
5-10.475V/200MA
GAIN=3.844
C31 0.1
TP62 BLK
R69 6.81K
R67 6.81K
C21 0.068
R77 1M
R126 CCW 50K 10% 0.5W
OFFSET
HI_MA_TP
R68 28K
C15 6800P 200V
U5 TL084B
R66 475
TP40 HI_MA_SEN P1 - 68
TP49 9.9998V/200MA
R88 475
HI_MA_SEN_REF P1 - 69
R78 10
U5PLS
C20 0.1
R31 10
C11 0.1
HIGH CURRENT SENSE AMPLIFIER
HIGH CURRENT SENSE FILTER
LO_MA_SEN_POS OUT 1D8 2B3
R119 10.2K 0.1%
CR11 1N914
R86 10
C29 0.1
R118 4.42K
CR12 1N914
C42 0.33
C69 0.33
0.6797V=20MA
R100 4.32K
R91 49.9 4.3699K TOTAL
R89 10
C32 0.1
GAIN=12.3046
CR13 1N914
CR14 1N914
C43 0.33
TP52 BLK
U10 AD620A REF
RG1 RG2 V+ V- 7 3 1 8 2 4 5 6
-8.3634V/20MA
R72 6.81K
C17 0.022 100V
R70 6.81K
R71 28K
C22 0.22
R79 499K
R138 CCW 50K 10% 0.5W OFFSET
LO_MA_TP
TP43
U5 TL084B
R73 475
TP39 LO_MA_SEN P1 - 70 7.9842V/20MA
TP44
R74 475
LO_MA_SEN_REF P1 - 71
LOW CURRENT SENSE AMPLIFIER
LOW CURRENT SENSE FILTER
OUT 1B3 VCC
TP33 MA_TP
R55 475K
R51 10K
R54 10K
R48 20K
Q8 2N3904
Q7 2N3906
R33 1K
R49 4.99K
C19 1000P 200V
R56 49.9K
R28 10K
R29 2.21K
TP30 MA_HIGH* P1 - 66
Q5 2N3904
Q6 2N3904
C10 4700P
CR3 1N914
CR2 1N914
TP24 BLK
HIGH CURRENT CHECK

| OEC MEDICAL SYSTEMS, INC. | | | |
|---|---|---|---|
| SIZE D | DWG NO. 00-878727 | | REV B2 |
| SCALE: NONE | | SHEET 2 OF 2 | |

05-817-9/93

| DWG NO. 00-878906 | SHT 1 | REV B2 |
|---|---|---|

| M | ENGIN. REV. 5.1 REVISIONS | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO AY47 | 3-18-98 | C. BALL |
| A1 | REVISED PER ECO BK99 | 9-01-98 | C. BALL |
| A2 | REVISED PER ECO BR89 | 1-05-99 | C. BALL |
| B | REVISED PER ECO BP60A | 1-20-98 | C. BALL |
| B1 | REVISED PER ECO BR90 | 1-20-98 | C. BALL |
| B2 | REVISED PER ECO BV73 | 03-26-99 | K. MAHON |

KVP DRIVERS

KVP FLUX SENSE

OVERVOLTAGE SENSE

OVERCURRENT SENSE

FAULT/SHUTDOWN LOGIC

FAULT LATCHES

NOTES: UNLESS OTHERWISE SPECIFIED
1. ALL RESISTOR VALUES ARE IN OHMS, 0.25W, 1%
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 50V

| REF DES | DEVICE | DGND | +5V | AGND | -12V | +12V | UNUSED |
|---|---|---|---|---|---|---|---|
| U1,6 | AD736J | SHOWN | | | SHOWN | SHOWN | |
| U2 | TL084B | | | | SHOWN | SHOWN | |
| U3,5 | TL082B | | | | SHOWN | SHOWN | 1 AMP |
| U4,9,13-16, 23,26 | LM311 | | | | SHOWN | SHOWN | |
| U7,11,25 | 74LS14 | 7 | 14 | | | | 3 GATES |
| U8 | 74LS10 | 7 | 14 | | | | |
| U9 | IL0615-4 | | | | | | |
| U17 | HCPL4661 | 5 | 8 | | | | |
| U12,19 | 74LS74 | 7 | 14 | | | | |
| U18 | 74LS00 | 7 | 14 | | | | 1 GATES |
| U20 | LM2940-12V | SHOWN | | | | | |
| U21 | LM2990-12V | SHOWN | | | | | |
| U22 | SW06GP | SHOWN | | | SHOWN | SHOWN | |
| U24 | 7407 | 7 | 14 | | | | |
| | | | | | | | |

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C88 | |
| CR38 | |
| DS4 | |
| E4 | |
| FL3 | |
| P11 | P5,7-10 |
| Q11 | |
| R142 | |
| T4 | |
| TP92 | |
| U26 | |

DRAWING

LAST_MODIFIED=Mon Mar 29 11:14:13 1999

-02 SHOWN
-01 INACTIVE

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK.
IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND.
BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH HEREOF.

| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | MATERIAL | DRAWN M. WILLCOCKS | 9/26/95 |
| 00-878908 | 9800 | FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- | FINISH | CHECKED L. ANDERTON | 9/27/95 |
| NEXT ASSEMBLY | USED ON | ANGLES: +/- | | ENGINEERING M. WILLCOCKS | 9/27/95 |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: SCH, PCB, GENERATOR DRIVER, 9800

SIZE D | DWG NO. 00-878906 | REV B2

SCALE: NONE | SHEET 1 OF 2

05-016-9/93

FIL. VOLTAGE SENSE

FIL. OPTOCOUPLERS

FILAMENT DRIVE

SAT. FAULT SENSE

FIL. CONTROL INPUTS

FIL. B+ REGULATOR

FIL. CURRENT SENSE

FIL. DRIVE SENSE

POWER CONDITIONING

## CONNECTOR PIN ASSIGNMENTS

I/O FROM MOTHERBOARD P1

| | | | |
|---|---|---|---|
| XRAY_ON* | 1 | 20 | XRAY_ENABLE* |
| KVP_CNTL | 2 | 21 | KVP_CNTL_REF |
| KVP_DRV_A_TOP | 3 | 22 | KVP_DRV_A_BTM |
| KVP_DRV_B_TOP | 4 | 23 | KVP_DRV_B_BTM |
| KVP_DRV_RTN | 5 | 24 | SHUTDOWN |
| ANALOG_RTN | 6 | 25 | FIL_DRV_A* |
| FIL_DRV_B* | 7 | 26 | FIL_SELECT |
| FAULT_RST | 8 | 27 | FIL_B_CNTL |
| FIL_B_CNTL_REF | 9 | 28 | HV_GEN_ON* |
| INTLK_CMPLT* | 10 | 29 | FAULT |
| OVER_KVP_FAULT | 11 | 30 | GND_INTEG* |
| FIL_DRV_OK* | 12 | 31 | OVERLD_FAULT |
| SAT_FAULT | 13 | 32 | SM_FIL_ACK* |
| INV_B_SEN | 14 | 33 | INV_B_SEN_REF |
| FIL_B_SEN | 15 | 34 | FIL_B_SEN_REF |
| FIL_CUR | 16 | 35 | FIL_CUR_REF |
| FIL_VOLT | 17 | 36 | FIL_VOLT_REF |
| FLUX_SEN | 18 | 37 | FLUX_SEN_REF |
| FIL_ERROR | 19 | 38 | CABLE_SHLD |
| GND | 39 | | |

IGBTS SIG NAME

P3: 1 Q1G1, 2 Q1E1, 3 Q1G2, 4 Q1E2

P4: 1 Q2G1, 2 Q2E1, 3 Q2G2, 4 Q2E2

SERIES TUNING CURRENT

P6: CUR_LOOP 1 3 CUR_LOOP_RTN; CUR_LOOP_RTN 2 4 CUR_LOOP_RTN

POWER P2

| | | | |
|---|---|---|---|
| +15V | 1 | 5 | +5V |
| | 2 | 6 | |
| -15V | 3 | 7 | |
| | 4 | 8 | +24V |

FILAMENT DRIVER SIGNALS P11

| | | | |
|---|---|---|---|
| GND | 1 | 2 | FILDRA* |
| FILDRB* | 3 | 4 | POS_12V |
| FIL_REG_BASE | 5 | 6 | GND |
| INV_B_SN_DIV | 7 | 8 | FIL_B_SN_DIV |
| GND | 9 | 10 | FIL_VOLT_DIV |
| GND | 11 | 12 | KVP_FLUX_DIV |
| TNK_CHAS | 13 | 14 | HV_GEN_ON_OUT* |
| SM_SEL* | 15 | 16 | LG_SEL* |
| INTLK_CMPLT* | 17 | 18 | FIL_SELECT |
| FIL_RTN | 19 | 20 | BGND |

DRAWING

LAST_MODIFIED=Fri Mar 26 08:53:26 1999

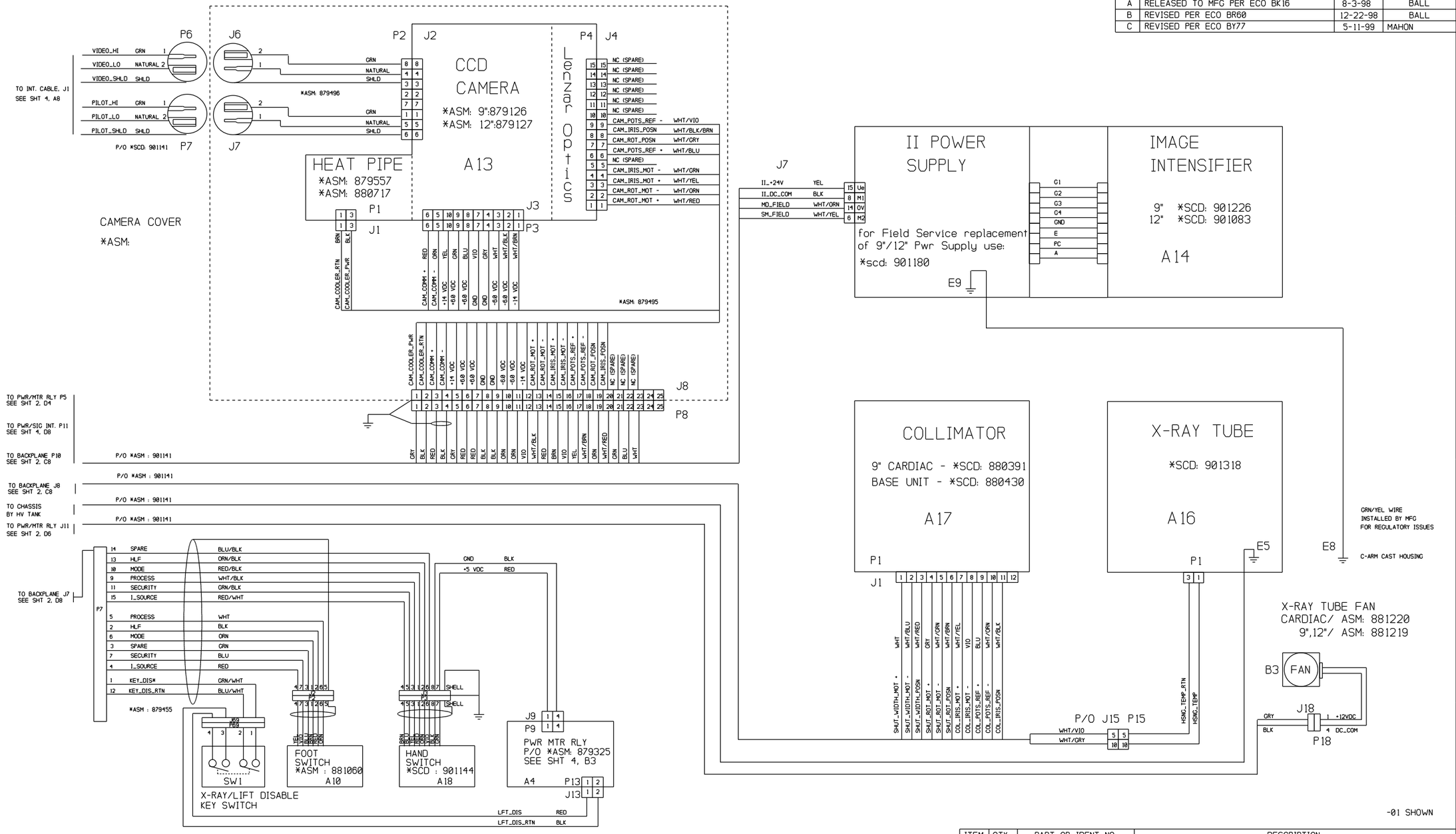
OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-878906 | B2 |
| SCALE: NONE | | SHEET 2 OF 2 |

05-017-9/93

| DWG NO. | 00-878980 | SHT 1 | REV C |
|---|---|---|---|

| M | ENGIN REV. 8 REVISIONS | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MFG PER ECO BK16 | 8-3-98 | BALL |
| B | REVISED PER ECO BR60 | 12-22-98 | BALL |
| C | REVISED PER ECO BY77 | 5-11-99 | MAHON |




-01 SHOWN

NOTES:

1.) * DENOTES NEW ASM/SCD FOR 9800

2.) FOR ADDITIONAL 9800 SYSTEM INFORMATION REFER TO DRW# 00-875380 AND 00-878981.

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST


THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK.
IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND.
BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.


| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | MATERIAL N/A | DRAWN K. KOONS | 11/10/95 |
| 00-87xxxx | 9800 | FRACTIONS: +/- ----- DECIMALS: XX+/- ----- XXX+/- N/A | FINISH N/A | CHECKED C. BALL | |
| NEXT ASSEMBLY | USED ON | ANGLES: +/- N/A | | ENGINEERING K. KOONS | |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: INTERCONNECT DIAGRAM, C-ARM, 9800

SIZE D | DWG NO. 00-878980 | REV C

SCALE: NONE | SHEET 1 OF 4

05-816-9/93

DWG NO. 00-878980 | SHT 2 | REV C

BACKPLANE PCB *ASM: 879364 A1

FLUORO FUNCTIONS PCB A1A3 *ASM: 879101

X-RAY CONTROLLER PCB A1A2 *ASM: 879805

HV SUPPLY REGULATOR PCB A1A1 *ASM: 878729

POWER/MOTOR RELAY PCB *ASM: 879325 A4

BATTERY CHARGER PCB *ASM: 880306 A22

FILAMENT DRIVER PCB *ASM: 879722 A21

GENERATOR DRIVER PCB *ASM: 878908 A2

SNUBBER PCB *ASM: 879926

HV TANK *SCD: 900987 A9

X_RAY TUBE SCD: 901318 *ASM: 881519 A16

IGBT FAN *ASM: 881200 TO PWR MTR RELAY P12 SEE SHT 2, D5

OEC MEDICAL SYSTEMS, INC.

SIZE D | DWG NO. 00-878980 | REV C | SCALE: NONE | SHEET 2 of 4

05-017-9/93

TO PWR/MTR
RELAY PCB
SEE SHT 2, D5

J3
1 LIFT_UP_SW VIO
2 36VDC GRY
4 LIFT_DN_SW BLU
→ 8 9 7 PS3-CNTL

*ASM: 879401

J6
1 MOTOR_115VAC BLK
5 MOTOR_115VAC_RTN WHT
GRN
→ L N E PS3-PWR

E15

*ASM: 879400

Column PS
*SCD: 901177
PS3

Column Lift
*SCD: 901166

TO PWR/MTR
RELAY PCB
SEE SHT 2, D5

J4
19 LIFT_UP_SW RED
8 MOT_AC_RTN_EN BRN
7 DC_RTN_SW WHT
21 36VDC VIO
23 LIFT_DN_SW GRY/PNK
20 MOT_AC_RTN_EN BLK
18 DC_RTN_SW BLU
25 36VDC
11 FS_MOTOR_A
12 FS_MOTOR_B
10 FS_MTR_LOOP
13 FS_MTR_LOOP

P/O COLUMN *SCD: 901166

RED/BLU

J1 P1
1 LIFT_UP_SW BLK — LIFT UP COM / NO — S4 'A'
2 MOT_AC_RTN_EN BLU — NO / COM — S4 'B'
3 DC_RTN_SW ORN
4 36VDC WHT

*ASM: 879031

J2 P2
1 LIFT_DN_SW BLK — LIFT DN COM / NO — S5 'A'
2 MOT_AC_RTN_EN BLU — NO / COM — S5 'B'
3 DC_RTN_SW ORN
4 36VDC WHT

*ASM: 879395

YEL
GRY
GRN
PNK

FAST STOP SWITCH
*ASM: 879407-01/02
2 PLCS.

S1 'A' COM / NC — FS_INTLK_A / FS_INTLK_LOOP — P9 / J9
S1 'B' COM / NC — FS_MOTOR_A / FS_MTR_LOOP — P6 / J6

X-RAY ON SWITCH
*ASM: 879422

S2 'B' COM / NC — FS_MTR_LOOP / FS_MOTOR_B — P7 / J7
S2 'A' COM / NC — FS_INTLK_LOOP / FS_INTLK_B — P10 / J10

S3 'B' COM / NO — I_SOURCE (BLK) / SECURITY (VIO)
S3 'A' COM / NO — PROCESS (YEL) / XRAY_LAMP* (GRN)
DS3 X-RAY ON LAMP — +5V (ORG)
P11 / J11

WHT GRY — YEL PNK — GRN GRY — BRN YEL — BLU WHT/GRY — PNK — BLK — RED

CHASSIS_GND
GRN/YEL
E10

## 9800 CONTROL PANEL
*ASM: 879502

A3
CONTROL PANEL
PROCESSOR
ASM: 878488

J1 P4
J2 P5

P6 CONNECTS TO RIGHT PANEL
P7 CONNECTS TO LEFT PANEL

A20
CPP I/O
*ASM: 880324

P3 J3

| | | |
|---|---|---|
| 1 | FLUORO_RXD_LO | VIO |
| 2 | FLUORO_RXD_HI | RED/BLU |
| 3 | FLUORO_CTS_LO | GRY/PNK |
| 4 | FLUORO_CTS_HI | WHT/GRN |
| 5 | FLUORO_TXD_HI | WHT/YEL |
| 6 | FLUORO_TXD_LO | GRY/BRN |
| 7 | FLUORO_RTS_HI | BRN/GRN |
| 8 | FLUORO_RTS_LO | GRN |
| 9 | MRESET* | YEL/BRN |
| 10 | +5V_CPP | RED |
| 11 | +5V_CPP | GRY |
| 12 | DC_COMMON | BLK |
| 13 | DC_COMMON | BLU |
| 14 | DC_COMMON | BRN |
| 15 | ALARM_+5V | YEL |

P6 P7
J6 J7
ALARM_+5V RED 1 — RED 1
GND BLK 2 — BLK 2
ALARM_+5V RED 1
GND BLK 2

*ASM: 880445-01/02

P1 CONNECTS TO LEFT PANEL — P1 & P2 — P2 CONNECTS TO RIGHT PANEL

1 VFD7 — 2 VFD6 — 3 VFD5 — 4 CND — 5 VFD4 — 6 VFD3 — 7 VFD2 — 8 CND — 9 VFD1 — 10 VFD0 — 11 WHT_RT#/LFT# — 12 CND — 13 BUF_ADDR 0 — 14 CS_RT#/LFT# — 15 PUP2 RT/LFT — 16 GND — 17 VCC — 18 VCC — 19 VCC — 20 VCC — 21 VCC — 22 SPARE — 23 ROW 0 OUT — 24 COL 0 IN — 25 ROW 1 OUT — 26 COL 1 IN — 27 ROW 2 OUT — 28 COL 2 IN — 29 ROW 3 OUT — 30 COL 3 IN — 31 ROW 4 OUT — 32 COL 4 IN — 33 ROW 5 OUT — 34 COL 5 IN — 35 RT/LFT LED-1 — 36 RT/LFT LED-2 — 37 RT/LFT LED-3 — 38 RT/LFT LED-4 — 39 RT/LFT LED-5 — 40 RT/LFT LED-6 — 41 RT/LFT LED-7 — 42 RT/LFT LED-8 — 43 RT/LFT LED-9 — 44 RT/LFT LED-10 — 45 RT/LFT LED-11 — 46 RT/LFT LED-12 — 47 RT/LFT LED-13 — 48 RT/LFT LED-14 — 49 RT/LFT LED-15 — 50 RT/LFT LED-16

ASM 876691

P1

J4 P4

KEY / DISPLAY

P2

*ASM: 880844

SCD: 901151 PNL ASM
*SCD: 901403 VACUUM FLUORESCENT DSPLY

A7 & A8

P1

VACUUM FLUORESCENT DISPLAY

TO PWR/SIG
INTERFACE
SEE SHT 4, D8

P1
J6

P/O COLUMN *SCD: 901166

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-878980 | C |
| SCALE: NONE | | SHEET 3 of 4 |

05-017-9/93

TO BACKPLANE J9
SEE SHT 2, B7

TO CAMERA HOUSING P8
SEE SHT 1, C8

TO COLUMN ASSEMBLY
*SCD: 901177
SEE SHT 3, A8

*ASM: 879452

PCB MOUNTING HOLE

POWER SIGNAL INTERFACE PCB

*ASM: 879021

A11

| | | |
|---|---|---|
| PROCESS | PNK | 1 |
| FS_INTLK_B | YEL | 4 |
| MRESET* | YEL/BRN | 5 |
| XRAY_LAMP* | BLK | 6 |
| FLUORO_RTS_HI | BRN/GRN | 9 |
| FLUORO_TXD_HI | WHT/YEL | 10 |
| FLUORO_CTS_HI | WHT/GRN | 11 |
| FLUORO_RXD_HI | RED/BLU | 12 |
| SECURITY | WHT/GRY | 13 |
| I_SOURCE | BLU | 15 |
| +5V | RED | 17 |
| FS_INTLK_A | WHT | 21 |
| FLUORO_RTS_LO | GRN | 22 |
| FLUORO_TXD_LO | GRY/BRN | 23 |
| FLUORO_CTS_LO | GRY/PNK | 24 |
| FLUORO_RXD_LO | VIO | 25 |
| FS_INTLK_LOOP | GRY | 14 |
| FS_INTLK_LOOP | BRN | 16 |

CHARGER LIGHT

DS-2

TO PWR/MTR RELAY P7
SEE SHT 2, D6

| | | |
|---|---|---|
| 115VAC_RTN_MTR | BRN | 10 |
| 115VAC_PH_IN | | |
| 115VAC_PH_MTR | BRN | 10 |
| 115VAC_PH_SW | BRN | 12 |
| 115VAC_PH_IN | BRN | 6 |
| 115VAC_RTN_MTR | BLU | 3 |
| DC_COMMON | BLK | 8 |
| 24V_IN | YEL | 7 |
| 24V_INTERLOCK | ORN | 1 |

*ASM: 879456

TO BATTERY CHARGER P1
SEE SHT 2, C6

| | | |
|---|---|---|
| 24V_INTERLOCK | GRY | |
| CHASSIS_GND | BLK | |
| 115VAC_RTN_CH | BLU | |
| 115VAC_PH_CH | BRN | |

*ASM: 879448

TO BACKPLANE P5
SEE SHT 2, C8

| | | |
|---|---|---|
| +15V | GRY | |
| -15V | VIO | |
| -15V | VIO | |
| DC_COMMON | BLK | |
| +15V | GRY | |
| +5V | RED | |
| +5V | RED | |
| DC_COMMON | BLK | |

*ASM: 879450

TO GENERATOR DRV P2
SEE SHT 2, A8

| | | |
|---|---|---|
| +15V | GRY | |
| DC_COMMON | BLK | |
| -15V | VIO | |
| +5v | RED | |
| DC_COMMON | BLK | |
| +24V | ORN | |

*ASM: 879449

| | | |
|---|---|---|
| +6.0V | RED | |
| -6.0V | WHT | |
| +14V | GRY | |
| DC_COMMON | BLK | |
| DC_COMMON | BLK | |
| 115VAC_PH_PS2 | BRN | |
| +6.0V | RED | |
| -6.0V | WHT | |
| -14V | VIO | |
| +24V | YEL | |
| DC_COMMON | BLK | |
| 115VAC_RTN_PS2 | BLU | |

*ASM: 879446

| | | |
|---|---|---|
| 115VAC_RTN | BRN | |
| GROUND | BLK | |
| DC_COM | BLK | |
| 115VAC_PH | BLU | |

*ASM: 879173

TO INTERCONNECT CABLE J1
*ASM: 879322

| | |
|---|---|
| VIDEO_HI | 1 |
| VIDEO_LO | 2 |
| SAFETY_GND | 3 |
| PILOT_HI | 4 |
| PILOT_LO | 5 |
| 115VAC_RTN | 6 |
| ARCNET_HI | 7 |
| ARCNET_LO | 8 |
| GROUND | 9 |
| FRAME_SYNC_HI | 10 |
| FRAME_SYNC_LO | 11 |
| 115VAC_PH | 12 |
| VIDEO_SHLD | 13 |
| KEY_PWR | 14 |
| DC_COM | 15 |
| PILOT_SHLD | 16 |
| ARCNET_SHLD | 17 |
| CHASSIS_GND (SPARE) | 18 |
| LOOP2 | 19 |
| FRAME_SYNC_SHLD | 20 |
| NC, HI-RES_LEFT | 21 |
| CNCT_ON | 22 |
| NC, HI-RES_LEFT-RTN | 23 |
| LOOP1 | 24 |

SAFETY_GND

CHASSIS_GND (SPARE)

E1 E11

T2
Transformer
*SCD: 901148

P/O *ASM: 879870

| | | |
|---|---|---|
| 28VAC | ORN | 1 |
| 28VAC_RTN | ORN | 7 |
| 28VAC | RED | 2 |
| CENTER_TAP | RED/YEL | 8 |
| 38VAC_RTN | RED | 3 |
| 38VAC | BLU/WHT | 9 |
| 225VAC_RTN | BLU | 4 |
| 225VAC | BLK | 10 |
| 115VAC_RTN | BLK | 12 |
| 115VAC | BLK | 6 |

PS2
(+24,+/-14,+/-6.0VDC)

*ASM: 879674

FAN
B2

| | | |
|---|---|---|
| 115VAC | BLK | |
| 115VAC_RTN | BLK | |

*ASM: 879970

PS1
(+5/+12/+-15VDC)
*SCD: 901393

E2

| | | |
|---|---|---|
| 115_PH_PS1 | 5 | 5 |
| 115_RTN_PS1 | 3 | 3 |
| GRN/YEL | 1 | 1 |

| | | |
|---|---|---|
| +15V | GRY | |
| -15V | VIO | |
| DC_COM | BLK | |
| DC_COM | BLK | |
| DC_COM | BLK | |
| +12V | ORN | |
| +5V | RED | |
| +5V | RED | |
| +5V | RED | |

POWER MOTOR RELAY PCB

*ASM: 879325

A4

| | | |
|---|---|---|
| +5V | 6 | 6 |
| +5V | 5 | 5 |
| +5V | 4 | 4 |
| DC_COM | 12 | 12 |
| DC_COM | 11 | 11 |
| +12V | 8 | 8 |
| +5V | 3 | 3 |
| +5V | 2 | 2 |
| +5V | 1 | 1 |

| | | |
|---|---|---|
| +5V | RED | |
| +5V | RED | |
| +5V | RED | |
| DC_COM | BLK | |
| DC_COM | BLK | |
| +12V | ORN | |
| +5V | RED | |
| +5V | RED | |
| +5V | RED | |

*ASM: 879445

WHT
BLK

COOLER_SPLY

TO BACKPLANE, P5
SEE SHT 2, C8
P/O *ASM: 879450

TO CAMERA
SEE SHT 1, D8

| | | | | | |
|---|---|---|---|---|---|
| VIDEO_HI | GRN | 2 | J3 | P3 | GRN |
| VIDEO_LO | NATURAL | 1 | | | NATURAL |
| VIDEO_SHLD | SHLD | | | | SHLD |
| PILOT_HI | GRN | 2 | | | GRN |
| PILOT_LO | NATURAL | 1 | | | NATURAL |
| PILOT_SHLD | SHLD | | J4 | P4 | SHLD |

TO BACKPLANE J2
SEE SHT 2, D8

| | |
|---|---|
| FRAME_SYNC_HI | GRN |
| FRAME_SYNC_LO | NATURAL |
| FRAME_SYNC_SHLD | SHLD |
| ARCNET_HI | GRN |
| ARCNET_LO | NATURAL |
| ARC_NET SHLD | SHLD |
| KEY_PWR | BLK |
| CNCT_ON | BRN |

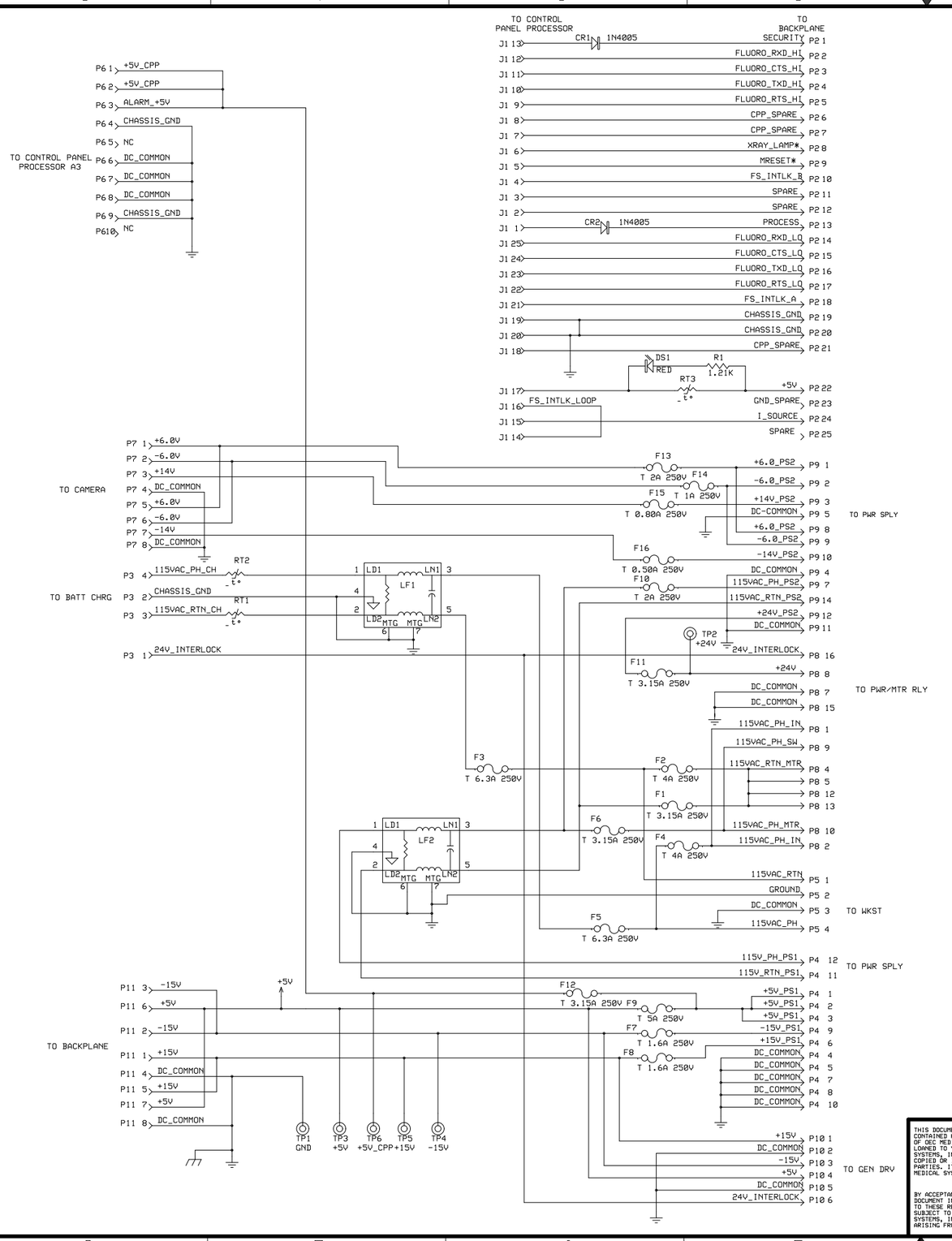
OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-878980 | C |
| SCALE: NONE | | SHEET 4 of 4 |

05-017-9/93

DWG. NO. 00-879019 | SH 1 | REV C

| REV | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| | M ENGRG REV 5 | | EDR 01346 |
| A | RELEASED TO MANUFACTURING PER ECO AV75 | 2-11-98 | C. BALL |
| B | REVISED PER ECO BA88 | 4-1-98 | C. BALL |
| B1 | COMP VALUE CHG PER ECO BE57 | 5-26-98 | C. BALL |
| B2 | NET NAME CHG PER ECO BF11 | 6-05-98 | C. BALL |
| C | REVISED PER ECO BW06 | 3-22-99 | K. MAHON |




REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| CR2 | |
| DS1 | |
| F16 | |
| J1 | |
| LF2 | |
| P11 | P1 |
| R1 | |
| RT3 | |
| TP6 | |

-01 SHOWN

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS, INC. WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS, INC. UPON DEMAND

BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS, INC FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | |
|---|---|
| 879021 | 9800 |
| NEXT ASSY | USED ON |
| APPLICATION | |

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS: :---
DECIMALS: .XX:---
.XXX:---
ANGLE: :---

MATERIAL ----------
FINISH ---------

DO NOT SCALE DRAWING

| | APPROVED | DATE |
|---|---|---|
| DRAWN | F.A. FLANSBURG | 07/19/96 |
| CHECKED | K. KOONS | 08/20/96 |
| ENGINEERING | K. KOONS | 08/20/96 |
| ISSUED | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE
SCH,PCB,POWER/SIGNAL INTERFACE, 9800

SIZE D | DWG NO. 00-879019 | REV C

SCALE:NONE | SHEET 1 OF 1

| DWG NO. 00-879099 | SHT 1 | REV C4 |
|---|---|---|

| M | ENGIN. REV. 6.1 REVISIONS | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO BA46 | 03-31-98 | C. BALL |
| A.1 | REVISED PER ECO BC15 | 04-21-98 | C. BALL |
| A.2 | REVISED PER ECO BL58 | 09-18-98 | C. BALL |
| B | REVISED PER ECO BW60 | 04-29-99 | C. BALL |
| C | REVISED PER ECO CB93 | 07-01-99 | T. MIYA |
| C1 | REVISED PER ECO CD13 | 08-31-99 | C. BALL |
| C2 | REVISED PER ECO CE16 | 09-20-99 | C. BALL |
| C3 | REVISED PER ECO CE46 | 09-27-99 | C. BALL |
| C4 | REVISED PER ECO CR05 | | |

TP17 WHT
VCC
CR1 SD103
R6 4.75K
→ P1 - 42
U28 MAX1232 PBRST ST TOL TD RST RST
C2 0.1 50V
S19
TP29 WHT
U4 7407
TP19 WHT
TP10 WHT
4C4 WD_STRB
E1
XE1 (TRACE ONLY)
Y1 16MHZ EN VCC CLK
16MHZ_CLK 3B8
FL1 EMI FL 7A 50V
CB3 0.1 50V
R138 27.4
R87 0.25W 2% 10K
R54 0.25W 2% 10K
U36 MC68HC16Z1
R113 1K 1%
CLKOUT
TP3 WHT
RESET* 2A4 2B7 3B5 3B8
TP32 WHT
TP33 WHT
3B7 INT_FS*
3B7 INT_ARC*
3B5 BKPT
3B5 BERR
EXTAL
MODCLK/XX
TSC
TSTME
IRQ7/XX
IRQ6/XX
IRQ5/XX
IRQ4/XX
IRQ3/XX
IRQ2/XX
IRQ1/XX
HALT
DSACK1/XX
DSACK0/XX
DSCLK
BKPT
BERR
XFC
VSYN
PAI
PCLK
XTAL
CLKOUT
RESET
FREEZE/QUOT
IPIPE1/DSI
IPIPE0/DSO
FREEZE 3B5
DSI 3B5
DSO 3C5
XX/CS10 MOT_CTL2 4D5
XX/CS9 CS_16BIT* 3B8
XX/CS8 CS_8BIT* 3B8
XX/CS7 MOT_CTL1 4D5
XX/CS6 IO_CTL 4C5
XX/CS5 CS_SRAM2_UB* 2D8
XX/CS4 CS_SRAM2_LB* 2D8
XX/CS3 CS_SRAM1_UB* 2D8
XX/CS2 CS_SRAM1_LB* 2D8
XX/CS1 CS_FLASH2* 2D8
XX/CS0 CS_BOOT* 2D8
CSBOOT
WR
RD
DS
AS
RD_WR* 1B4 2B7 3B8
DS* 3B5 3B8
AS*
TP8 WHT
TP2 WHT
TP12 WHT
4C5 PGP7 PGP6 PGP5 PGP4 PGP3 PGP2 PGP1 PGP0
4B5 PGP7 PGP6 PGP5 PGP4 PGP3 PGP2 PGP1 PGP0
PGP7/XX
PGP6/XX
PGP5/XX
PGP4/XX
PGP3/XX
PGP2/XX
PGP1/XX
PGP0/XX
4B3 PWMA
4D3 PWMB
PWMA
PWMB
VSTBY
AVEC
R41 392
2B3 FF_RXD
2B2 FF_TXD
2B2 FF_RTS
2B3 FF_CTS
3B7 MED_CTS*
2A2 MED_ECLK
2A3 MED_SDO
RXD
POS7/TXD
POS6/PCS3
POS5/PCS2
POS4/PCS1
PCS0
SCK
MOSI
MISO
R65 392
5B4 AD_REF
4A6 COOLER_PWR_MON
4B6 FLD_SIZE
4D5 SPARE_CH
4D5 COL_IRIS
4D5 COL_WIDTH
4D5 COL_ROT
4D5 CAM_IRIS
4D5 CAM_ROT
VDDA
VRH
AN7/PADA7
AN6/PADA6
AN5/PADA5
AN4/PADA4
AN3/PADA3
AN2/PADA2
AN1/PADA1
AN0/PADA0
VRL
VSSA
1N4005 CR3
1N4005 CR18
A18 A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0
D15 D14 D13 D12 D11 D10 D9 D8 D7 D6 D5 D4 D3 D2 D1 D0
PE6 SIZ1
PE7 SIZ0
U22 74HCT245 G3 3 EN1 [BA] 3 EN2 [AB]
U21 74HCT245 G3 3 EN1 [BA] 3 EN2 [AB]
UC_DATA<15..0>
UC_ADDR<19..0>
DATA<15..0> 1C1 2A5 2C8 3A5 3A7 5D4
RD_WR* 1C3 2B7 3B8
VCC
R16 2.2K
R7 2.2K
R26 2% 10K
R22 2% 10K
3B7 CS_LIMITS*
U23 74ABT16244 OE 4 OE 3 OE 2 OE 1
3C1 COL_SPARE_LIM-
3C1 COL_SPARE_LIM+
3C1 COL_IRIS_LIM-
3C1 COL_IRIS_LIM+
3D3 COL_ROT_LIM-
3D3 COL_ROT_LIM+
3D2 COL_WIDTH_LIM-
3D2 COL_WIDTH_LIM+
3D6 CAM_ROT_LIM-
3D6 CAM_ROT_LIM+
3D6 CAM_IRIS_LIM-
3D6 CAM_IRIS_LIM+
DATA<15..0> 1B4 2A5 2C8 3A5 3A7 5D4
R30 392
U20 74HC244 EN 2 EN 1
HC_DS* 3B8
U19 74HC244 EN 2 EN 1
U18 74HC244 EN 2 EN 1
ADDRESS<17..0> 2A7 2C8 3B8

DRAWING
LAST_MODIFIED=Tue Nov 7 17:01:25 2000
ACTIVE_BOMS=-24

-04 SHOWN
-03 INACTIVE
-02 INACTIVE
-01 INACTIVE

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | CONTRACT NO. | APPROVED | DATE |
|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: MATERIAL | DRAWN J. JOHNSON | 5-13-96 |
| 00-879101 | 9800 | FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- FINISH | CHECKED J.C.J. | 9-11-96 |
| NEXT ASSEMBLY | USED ON | ANGLES: +/- | ENGINEERING KEN KOONS | 9-11-96 |
| APPLICATION | | DO NOT SCALE DRAWING | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: FLUORO FUNCTIONS

SIZE D | DWG NO. 00-879099 | REV C4

SCALE: NONE | SHEET 1 OF 5

05-016-9/93

1C5 CS_SRAM2_UB*
1C5 CS_SRAM2_LB*
1C5 CS_SRAM1_UB*
1C5 CS_SRAM1_LB*
1C5 CS_FLASH2*
1C5 CS_BOOT*
3B7 WRITE2*
3B7 WRITE1*
3C7 READ*

## MEMORY

U7, U6, U12, U13: AM29F010 SPEED=70_NS (CS, WE, OE; A16–A0; D7–D0) — 128K X8 FLASH
U14, U15, U16, U17: PD431000 (WE, CS1, CS2, OE; A16–A0; I/O 7–0) — 128K×8 SRAM

5D4 2A5 1C1 1B4 DATA<15..0>
1A2 ADDRESS<17..0>

## CONTROL PANEL COMM

P1 - 28 RXD_HI — R119 150 1% — C85 100P
P1 - 27 RXD_LO — R124 10K 1%
P1 - 30 CTS_HI — R112 150 1% — C82 100P
P1 - 29 CTS_LO — R118 10K 1%

U57 MC3486 EN — FF_RXD 1B7, FF_CTS 1B7

R134 0.25W 2% 10K

U58 MC3487 EN
1B7 FF_RTS
1B7 FF_TXD
RTS_HI P1 - 34
RTS_LO P1 - 33
TXD_HI P1 - 32
TXD_LO P1 - 31

## ARCNET

U10 ADM485 — P1 - 17 ARCNET_HI, P1 - 18 ARCNET_LO
R18 619, R20 619, R14 392, R140 100
U5 COM20020 (RESET, DIR, WR, RD/DS, CS, INTR, TXEN, RXIN, XTAL2, XTAL1, ALE, A2, A1, MUX, A0, PULSE2, PULSE1, D7–D0, AD2–AD0)
1D4 RESET*
1C3 1B4 RD_WR*
3B7 ARC_DS*
3B7 CS_ARCNET*
ARC_INT* 3B8
DATA<15..0> 1B4 1C1 2C8 3A5 3A7 5D4
1A2 ADDRESS<17..0>
FL2 EMI FL 7A 50V — C1 .01 50V
Y2 20MHZ — R4 392 — R3 27.4
TP16 WHT, TP14 WHT, TP15 WHT, TP7 WHT, TP6 WHT, TP4 WHT, TP5 WHT
E12, E2

U24 ADM485 — P1 - 20 FRAME_SYNC_HI, P1 - 21 FRAME_SYNC_LO — INT_FSYNC* 3B8
R19 75

## CAMERA SERIAL COMM

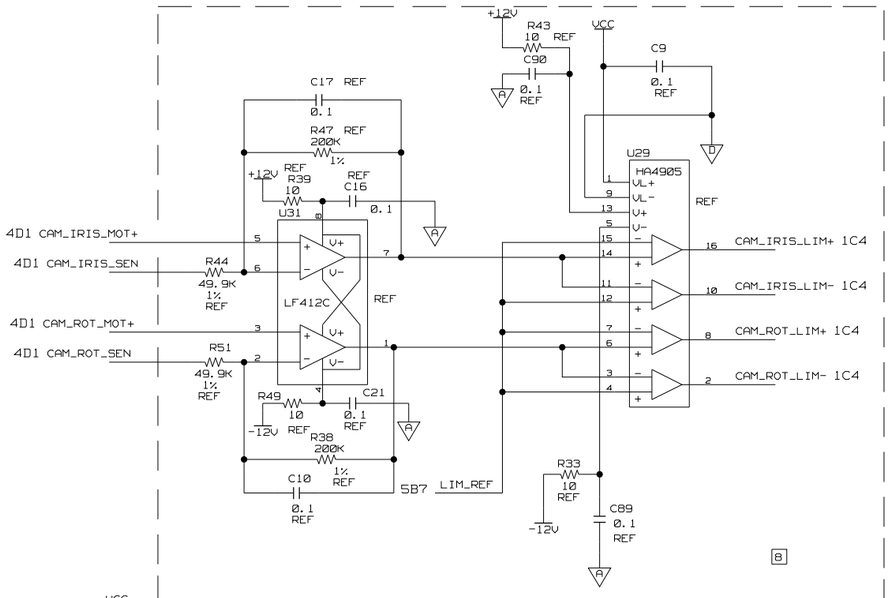
TP11 WHT — 3B7 1.6MHZ_CLK
U48 HD6409 — 1D4 RESET*, 1B7 MED_SDO, 3B7 MED_CTS*, MED_ECLK 1B7 3C8
U54 ADM485 — CAM_COMM-, CAM_COMM+, CAM_COMM_SHLD → P1 - 93, P1 - 94, P1 - 95
TP26 WHT, TP25 WHT, E19, R131 75

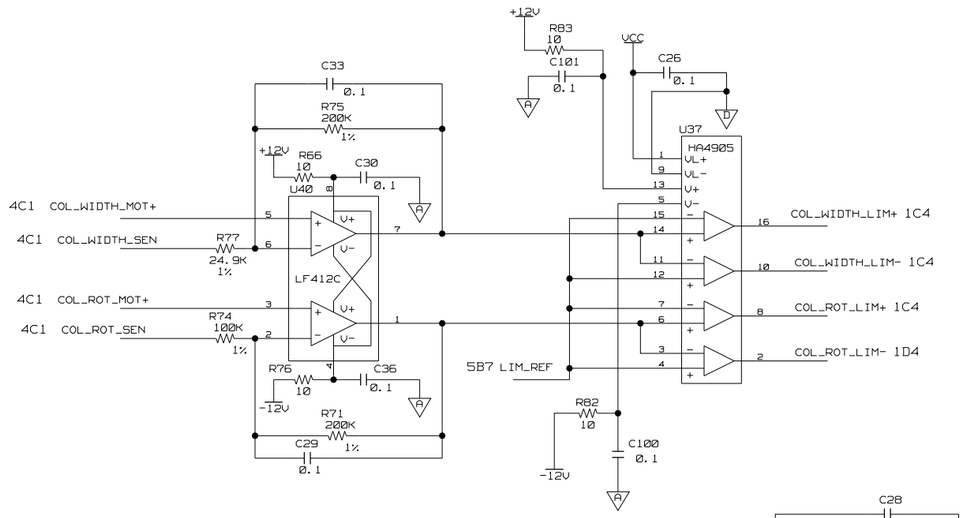
DRAWING
LAST_MODIFIED=Tue Nov 7 16:59:50 2000

OEC MEDICAL SYSTEMS, INC.

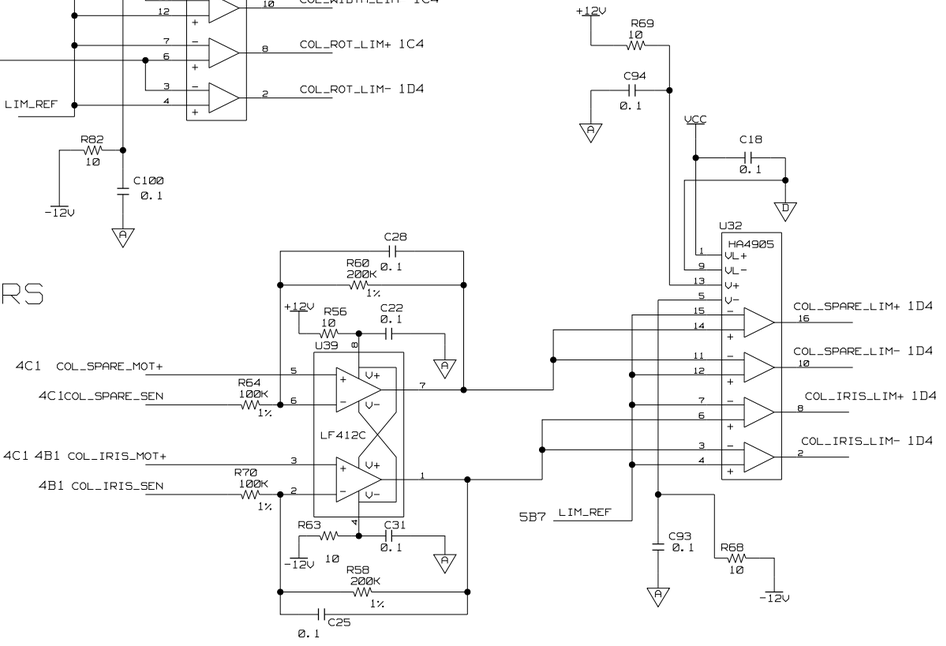
| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879099 | C4 |
| SCALE: | | SHEET 2 OF 5 |

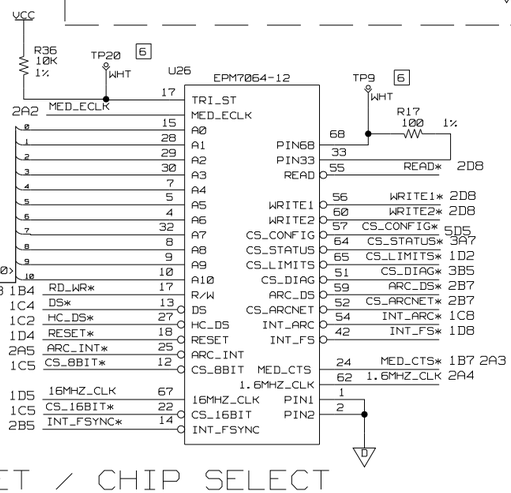
05-017-9/93



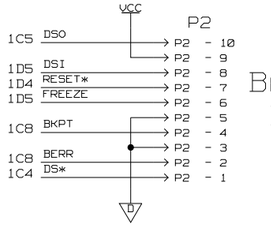




# MOTOR LIMIT INDICATORS

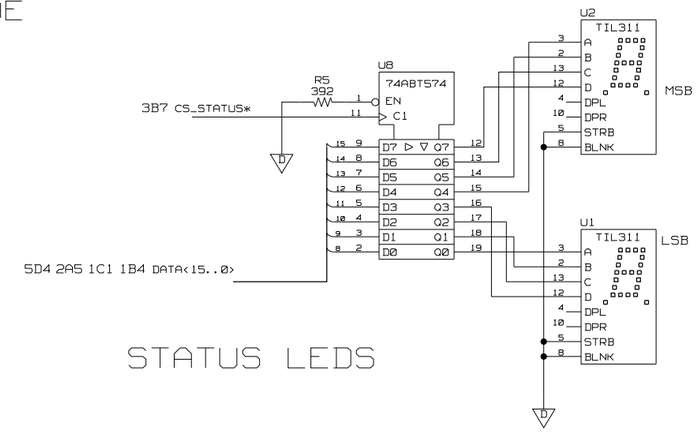


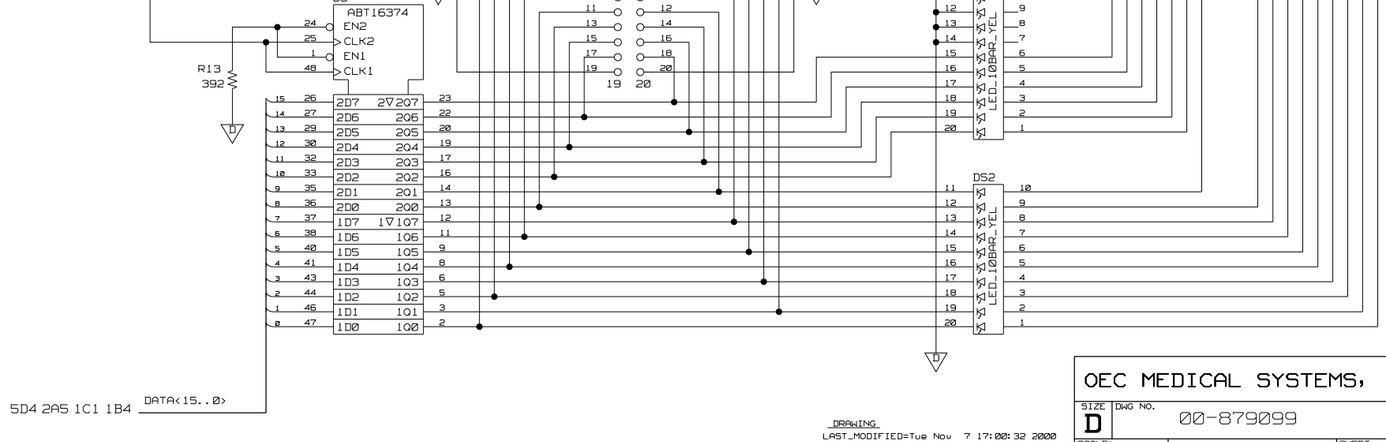

# ARCNET / CHIP SELECT DECODE




# BACKGROUND DEBUGGING PORT




# STATUS LEDS




# DIAGNOSTICS PORT

DRAWING
LAST_MODIFIED=Tue Nov 7 17:00:32 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879099 | C4 |

SCALE: | SHEET 3 OF 5

05-017-9/93

## POSITION FILTERS

(FO = 1000 HZ)

P1 - 99 CAM_ROT_POSN — R107 10K 1% — R101 10K 1% — C47 0.1
P1 - 98 CAM_IRIS_POSN — R85 10K 1% — R96 10K 1% — C48 0.1
P1 -100 CAM_POTS_REF-
P1 - 72 COL_ROT_POSN — R105 10K 1% — R100 10K 1% — C45 0.1
P1 - 68 COL_WIDTH_POSN — R81 10K 1% — R95 10K 1% — C52 0.1
P1 - 74 COL_IRIS_POSN — R110 10K 1% — R108 10K 1% — C51 0.1
P1 - 70 COL_SPARE_POSN — R93 10K 1% — R102 10K 1% — C53 0.1
P1 - 66 COL_POTS_REF-

U45 LF412C: C43 0.1, +12V, R80 243, C39 0.1, C108 10 16V, TP34 WHT, R86 100, R92 100, TP35 WHT, R106 1K 1%, C121 0.1, -12V, C113 0.1, C116 10 16V
U44 LF412C: C41 0.1, +12V, R79 243, C38 0.1, C107 10 16V, TP36 WHT, R84 100, R91 100, TP37 WHT, R103 1K 1%, C120 0.1, -12V, C112 0.1, C117 10 16V
U46 LF412C: C44 0.1, +12V, R90 243, C40 0.1, C111 10 16V, TP38 WHT, R94 100, R99 100, TP39 WHT, R109 1K 1%, C123 0.1, -12V, C115 0.1, C119 10 16V

U49 TL7726: CLAMP x6, REF, GND; 5B4 AD_REF

CAM_ROT 1A7
CAM_IRIS 1A7
COL_ROT 1A7
COL_WIDTH 1A7
COL_IRIS 1A7
SPARE_CH 1A7

## COOLER POWER

P1 - 26 COOLER_SPLY — C122 33 25V — C118 0.1 — Q1 — +15V — R88 10K 1% — Q5 2N4400 — R89 2K 1% — Q6 2N4400 — R97 2K 1% — COOLER_CTL
VCC — R163 10K 1%
CR19 1N5525B 6.2V
+12V — R132 10 — C65 0.1
P1 -108 CAM_COOLER_PWR
P1 -109 CAM_COOLER_RTN
U55 AD620A: RG1, RG2, REF, -V; R125 49.9K 1%; COOLER_PWR_MON 1B7
C78 0.1 — R135 10 — -12V
TP41 WHT

U47 TL7726: CLAMP x6, REF, GND; 5B4 AD_REF; R111 121 1%

## MOTOR CONTROL

1C5 MOT_CTL1 — U33 74ABT574 (EN, C1, D7..D0 / Q7..Q0)
1C5 MOT_CTL2 — U35 74ABT574 — R45 392
1C5 IO_CTL — U34 74ABT574
1C7 PGP7 IN
1C7 PGP6 IN
1C7 PGP5 IN
1C7 PGP4 IN
1C7 PGP3 IN
1C7 PGP2 IN
1C7 PGP1 IN
1B7 PGP0 IN

WD_STRB 1D5
COOLER_CTL
ROT_BRK — R34 2K 1% — Q4 2N4400 — CR8 1N4743 15V
FLD_D1 4A5
FLD_D0 4B5

VCC — C106 0.1
+15V — 1N914 CR5 — 1N914 CR4 — C76 33 25V — C75 0.1
15V_MOTOR_PWR 4B1

1B7 IN PWMB
1B7 IN PWMA

U41 L293D: VSS, VS, EN2, EN1, 2I4 204, 2I3 203, 1I2 102, 1I1 101
U42 L293D
U43 L293D

CAM_IRIS_SEN 3D8
CAM_IRIS_MOT- → P1 - 106 3D8
CAM_IRIS_MOT+ → P1 - 105 3D8
CAM_ROT_MOT- → P1 - 103 3D8
CAM_ROT_MOT+ → P1 - 102 3D8
R53 10 — R52 10
CAM_ROT_SEN 3D8
COL_WIDTH_SEN 3D5
CR14 1N914 CR15 1N914 CR20 1N914 — CR16 1N914 CR17 1N914 CR21 1N914 — R78 10 → P1 - 54
COL_WIDTH_MOT+ → P1 - 53 3D5
COL_ROT_MOT- → P1 - 60 3D5
COL_ROT_MOT+ → P1 - 59 3D5
R35 10
COL_ROT_SEN 3D5
COL_SPARE_SEN 3C4
COL_SPARE_MOT- → P1 - 57 3C4
COL_SPARE_MOT+ → P1 - 56 3C4
COL_IRIS_MOT- → P1 - 63 3C4
COL_IRIS_MOT+ → P1 - 62 3C4
R72 10 — R73 10 — C110 0.1
COL_IRIS_SEN 3C4

K3: +12V, CR2 1N914, 12V DC

## COLLIMATOR MOTOR POWER SELECT

5C1 5V_MOTOR_PWR — R161 0 5% — R162 0 5% REF — 15V_MOTOR_PWR 4D2

## FIELD SIZE

1A7 FLD_SIZE — R136 200K 1% 1N914 CR11 — R137 100K 1% 1N914 CR12 — R133 20K 1%
TP40 WHT

4B4 FLD_D0 — R120 2K 1% — Q2 2N4400 — CR13 1N914 — 1N4750 — CR6 27V — CR7 1N914
4B4 FLD_D1 — R123 2K 1% — Q3 2N4400

K1: CR10 1N914, 24V DC
K2: CR9 1N914, 24V DC

+24V → P1 - 112
SM_FLD → P1 - 110
MED_FLD → P1 - 111
DC_COM → P1 - 113

DRAWING
LAST_MODIFIED=Wed Nov 8 12:33:00 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879099 | C4 |

SCALE: | SHEET 4 OF 5

05-017-9/93

| REF DES | DEVICE | GND | +5V | UNUSED |
|---|---|---|---|---|
| U23 | ABT16244 | 4,10,15,21 28,34,39,45 | 7,18,31,42 | |
| U47,49 | TL7726 | | | |
| U3 | ABT16374 | 4,10,15,21 28,34,39,45 | 7,18,31,42 | |
| U29,32,37 | HA14905 | | | |
| U8,33-35 | ABT574 | 10 | 20 | |
| U10,24,54 | ADM485 | 5 | 8 | |
| U27,32,50-52 | OP27 | | | |
| U18-20 | 74HC244 | 10 | 20 | |
| U21,22 | 74HCT245 | 10 | 20 | |
| U31,38-40,44-46 | LF412C | | | |
| U6,7,12,13 | AM29F010 | 16 | 32 | |
| U5 | COM20020 | 7,14,22 | 15,28 | |
| U9 | 74ABT541 | 10 | 20 | |
| U41-43 | L293D | | | |
| U28 | MAX1232 | 4 | 8 | |
| U36 | MC68HC16Z1 | 2,9,22,29,41 58,62,83,97 | 1,8,21,40,59 61,84,98,113 | |
| | (MC68HC16Z1) | 105,112,125 | 124 | |
| U48 | HD6409 | 10 | 20 | |
| U14-17 | PD431000 | 16 | 32 | |
| U4 | 7407 | 7 | 14 | |
| U57 | MC3486 | 8 | 16 | |
| Y1,2 | OSC | 4 | | |
| U58 | MC3487 | 10 | 20 | |
| U55 | AD620A | | | |
| U26 | EPM7064 | 1,2,6,16,26 34,38,48, 58,66 | 3,11,21,31,35 43,53,63 | |

REFERENCE DESIGNATIONS

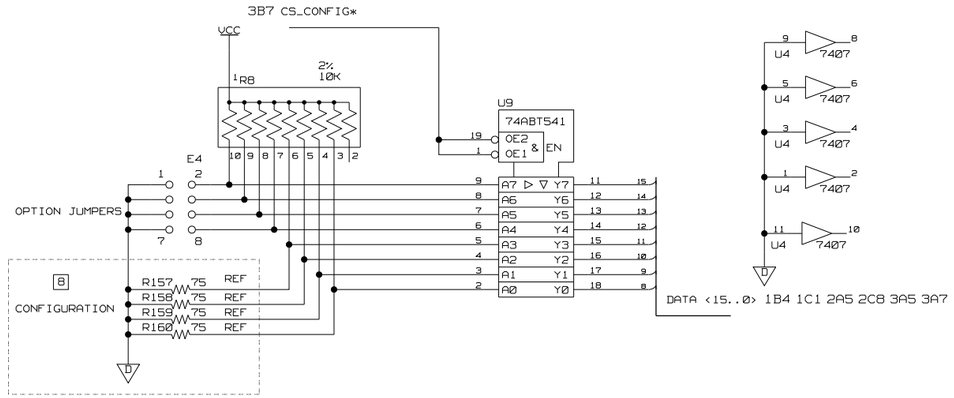
| HIGHEST | UNUSED |
|---|---|
| C167 | C4,5,7,8,11,15,19,20,23,24,27,32,137-164 |
| CR21 | |
| E22 | E5-11,13-18,20 |
| P2 | |
| K3 | |
| R163 | R21,23-25,28,29,40,42,46,48,50,55,57,59,61,62,66,67, R98,104,114,121,127 |
| U59 | U11,38 |
| VR1 | |
| Y2 | |
| FL6 | FL3 |
| DS2 | |
| Q6 | |
| TP44 | |

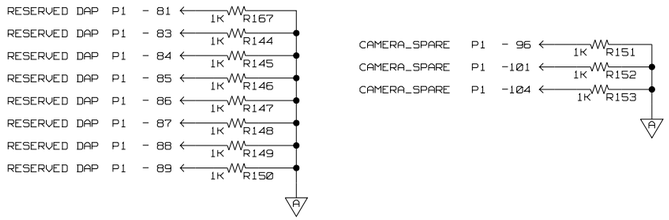
CHANGE SCH TO -04 ADDON!

| | | |
|---|---|---|
| 00-879099-04 | 5 | SCH, PCB, FLUORO FUNCTIONS, 9800 |
| 00-879100-02 | | PCB, FLUORO FUNCTIONS, A/F, 9800 |
| 00-879101-60 | | SPEC, PERF, FLUORO FUNC PCB, 9800 |
| 12-225104-06 | 5 | SCR,SEMS SPR,PAN,TRX,4-40,3/8,SZC |
| 22-320200-00 | 2 | EJTR,PCB,SGL ACTN LVR,.31W,.062 |
| 51-452933-00 | | CONN,RCPT,PRGM/SHRT,2SKT,BLK,.100CT |
| 13-121104-00 | 5 | NUT,HEX,4-40,SST,MS35649-244,A.250 |
| 00-881344-06 | | ASM, FW, HIGH ORDER, FLUORO FUNCTIONS PCB, 9800 |
| 00-881344-05 | | ASM, FW, LOW ORDER, FLUORO FUNCTIONS PCB, 9800 |
| 00-879424-01 | | ASM, FW, FLUORO ARC NET DEC |

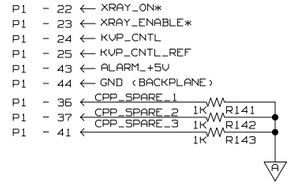
NOTES

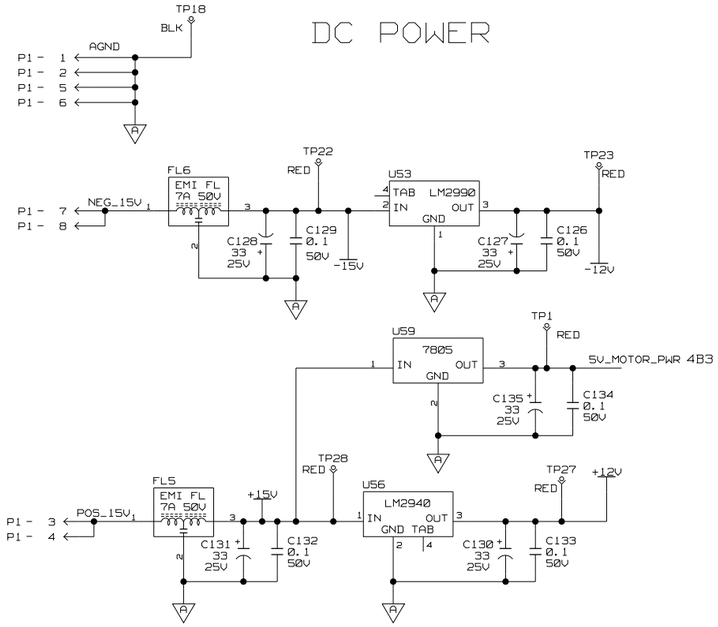
1. GROUNDS CONNECTED IN ONE PLACE ONLY.
2. INSTALL A JUMPER TO TERMINATE THE ARCNET (E2) AND/OR FRAME SYNC (E12) LINES IF THE FLUORO FUNCTIONS PCB IS AT THE END OF THE NETWORK. IN A NORMAL SYSTEM, E2 SHOULD BE JUMPERED, AND E12 SHOULD NOT BE JUMPERED SINCE FRAME SYNC IS TERMINATED ON THE XRAY CONTROLLER.
3. NO JUMPER IS INSTALLED ON E19.
4. JUMPER TP29 TO GND TO DISABLE ON BOARD CLOCK
5. LEAVE DISCONNECTED FOR USE WITH EMULATOR
6. TIE TP20 LOW TO TRI-STATE ALL OUTPUTS. TIE TP9 LOW TO DISABLE ALL CHIP SELECTS. NOTE THAT TRI-STATING ALL OUTPUTS MAY RESULT IN DAMAGE DUE TO FLOATING CMOS INPUTS. TRI-STATING OUTPUTS SHOULD ONLY BE PERFORMED BY AN IN-CIRCUIT TESTER WHICH WILL DRIVE THESE INPUTS.
7. TO DISABLE WATCHDOG, CUT THE TRACE "XE1" AND JUMPER TP11 TO TP19. THE WATCHDOG MUST NOT BE DISABLED FOR BOARDS USED BY OUR CUSTOMERS. ENGINEERING MAY DISABLE THE WATCHDOG TO ALLOW DEBUGGING WHEN USING AN EMULATOR.
8. COMPONENTS WITHIN DASHED BOX ARE NOT INSTALLED.
9. U36 MUST HAVE MFG. DATE CODE OF 9805 OR NEWER.

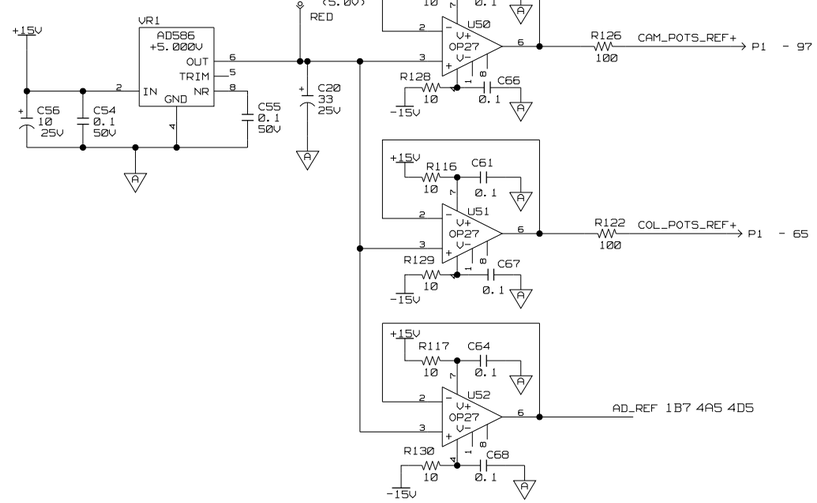




RESERVED DAP P1 - 81 R167
RESERVED DAP P1 - 83 R144
RESERVED DAP P1 - 84 R145
RESERVED DAP P1 - 85 R146
RESERVED DAP P1 - 86 R147
RESERVED DAP P1 - 87 R148
RESERVED DAP P1 - 88 R149
RESERVED DAP P1 - 89 R150
1K



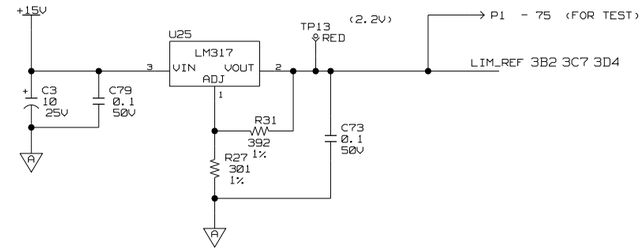


P1 - 22 ← XRAY_ON*
P1 - 23 ← XRAY_ENABLE*
P1 - 24 ← KVP_CNTL
P1 - 25 ← KVP_CNTL_REF
P1 - 43 ← ALARM_+5V
P1 - 44 ← GND (BACKPLANE)
P1 - 36 ← CPP_SPARE_1
P1 - 37 ← CPP_SPARE_2 R141
CPP_SPARE_3 R142
P1 - 41 ← R143
1K

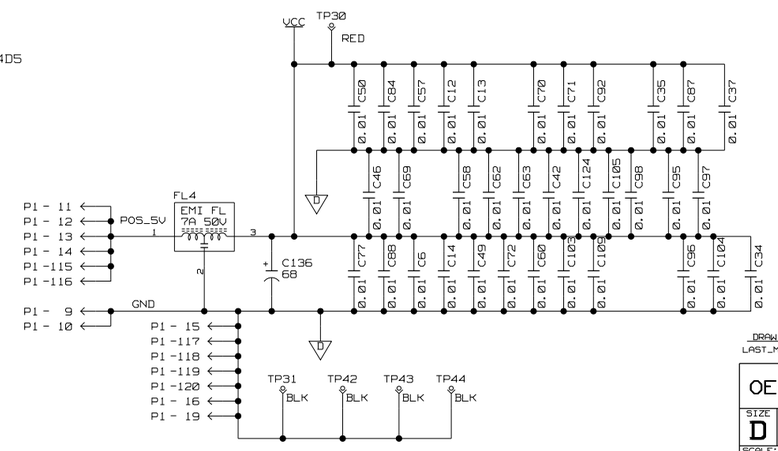


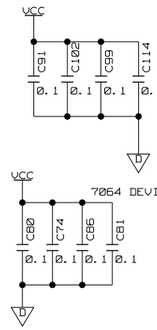




POSITION REFERENCES

MOTOR LIMIT REFERENCE




DRAWING
LAST_MODIFIED=Wed Nov 8 08:58:25 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879099 | C4 |
| SCALE: | | SHEET 5 OF 5 |

05-017-9/93

| DWG NO. 00-879323 | SHT 1 | REV C |
|---|---|---|

| M | ENGIN. REV. 9 | REVISIONS | | EDR 01346 |
|---|---|---|---|---|
| REV | | DESCRIPTION | DATE | APPROVED |
| A | | RELEASED TO MANUFACTURING PER ECO BB09 | 1-16-98 | C. BALL |
| A1 | | REVISED PER ECO BG82 | 3-30-98 | C. BALL |
| A2 | | REVISED PER ECO BM50 | 10-12-98 | C. BALL |
| B | | REVISED PER ECO BP47 | 01-27-99 | C. BALL |
| C | | REVISED PER ECO BY05 | 04-29-99 | C. BALL |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

00-879323-01 SCH, PCB, PWR/MTR RELAY
00-879324-02 PCB, PWR/MTR RELAY, A/F
00-879325-60 SPEC, PERF, PWR/MTR RELAY PCB

JUMPER E2 SHOULD BE REMOVED IN A 9" SYSTEM.

NOTES UNLESS OTHERWISE SPECIFIED
1. RESISTOR VALUES ARE IN OHMS, 5%, 1/4W
2. CAPACITOR VALUES ARE IN MICRO-FARADS

| REF DESIGNATIONS | DEVICE | GND | | +5V | UNUSED |
|---|---|---|---|---|---|
| | | | | | |

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C18 | C5 |
| CB1 | |
| CR14 | |
| DS2 | |
| E3 | |
| F7 | |
| K16 | |
| P12 | |
| R34 | R5, R9 |
| RV5 | |
| T1 | |
| TP16 | |
| | |

-01 SHOWN

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | MATERIAL | DRAWN F. FLANSBURG | 06-11-96 |
| | | | | CHECKED K. KOONS | 06-17-96 |
| 00-879325 | 9800 | | FINISH | ENGINEERING D. BUSH | 06-17-96 |
| NEXT ASSEMBLY | USED ON | | | APPROVED | |
| APPLICATION | | DO NOT SCALE DRAWING | | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: SCH, PCB, PWR/MTR RELAY

SIZE D | DWG NO. 00-879323 | REV C

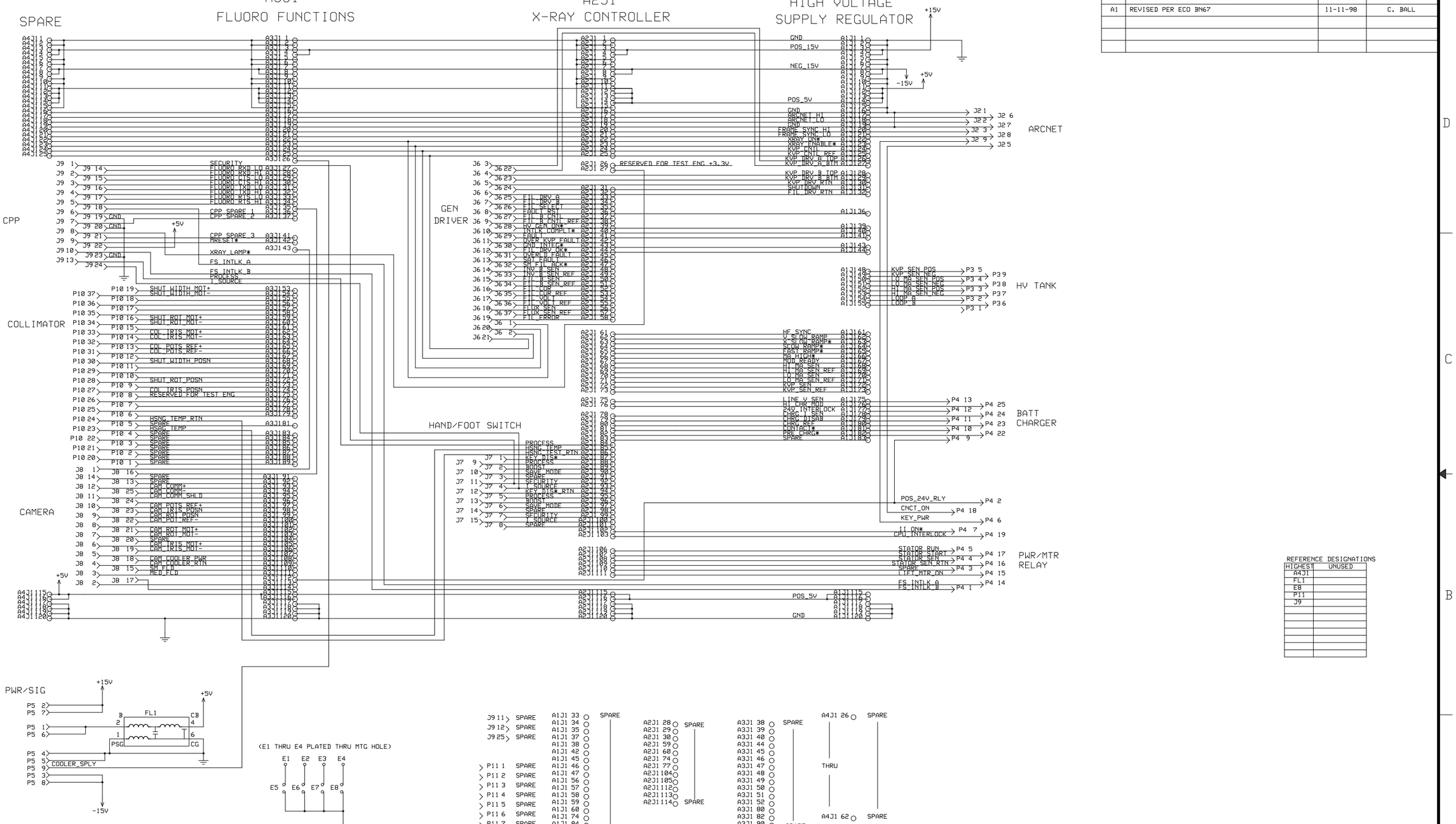
SCALE: NONE | SHEET 1 OF 1

05-016-9/93

| DWG. NO. | SH | REV |
|---|---|---|
| 00-879362 | 1 | A1 |

ENGRG REV 3.1 — EDR 01346

| REV | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| A | RELEASED TO MANUFACTURING | 02-11-98 | C. BALL |
| A1 | REVISED PER ECO BN67 | 11-11-98 | C. BALL |




REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| A4J1 | |
| FL1 | |
| E8 | |
| P11 | |
| J9 | |

-01 SHOWN

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS, INC. WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS, INC. UPON DEMAND

BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS, INC FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | |
|---|---|
| 00-879364 | 9800 |
| NEXT ASSY | USED ON |
| APPLICATION | |

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS: ±---
DECIMALS: .XX±---
.XXX±---
ANGLE: ±---

MATERIAL ---
FINISH ---

DO NOT SCALE DRAWING

| | APPROVED | DATE |
|---|---|---|
| DRAWN | K. MAHON | 07-11-96 |
| CHECKED | J. JOHNSON | 09-03-96 |
| ENGINEERING | K. KOONS | 09-06-96 |
| ISSUED | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE SCH, BACKPLANE, 9800

SIZE D | DWG NO. 00-879362 | REV A1

SCALE: NONE | EED3 | SHEET 1 OF 1

| DWG. NO. | SH | REV |
|---|---|---|
| 00-879389 | 1 | A1 |

ENGRG REV 6.2 EDR 01346

| REV | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| A | RELEASED TO MANUFACTURING PER ECO BA81 | 3-31-98 | C. BALL |
| A1 | REVISED PER ECO BF68 | 6-15-98 | C. BALL |

EXTERNAL MOUNTED TRANSFORMER FOR REFERENCE ONLY

115VAC

≈28

≈38 c.t.

≈22.5 c.t.

PN 00-901148

P1 1 P1 7 P1 2 P1 3 P1 8 P1 4 P1 9 P1 10 P1 12 P1 6

P1 5 > NOT USED

P1 11 > NOT USED

P3 3 P3 1

CR6 CR8 CR11 AC

T4 T1 T2 T5 T3 1.85A

C13 4700 50V

C14 1200 50V

C15 1200 50V

C17 4700 35V

C18 4700 35V

F1 T 1A 250V

C29 0.1 250VAC 400VDC

CR17 MOV

VR4 LM350K

VR1 LM317T

VR2 LM337T

VR5 LM317K

VR3 LM337T

IN OUT ADJ

CR16 CR7 CR4 CR18 CR12 1N4005

CR15 CR2 CR3 CR13 CR5 2N6507

R11 39 R19 100 C24 0.1 50V C26 1.0 50V C25 6.8 35V

R34 121 R30 500 R29 1.82K CR9 1N4005

R12 39 R13 100 C3 0.1 50V C2 1.0 35V C1 6.8 35V

R10 121 R2 121 CR1 1N4005 R9 0 R1 2.49K

C4 0.1 50V R15 100 R21 39 C5 1.0 35V

R3 121 C7 6.8 35V R4 316 R14 909 CR10 1N4005

R32 121 R36 121 CR19 1N4005 R35 909 C31 6.8 35V R31 100

C19 0.1 50V R24 100 C22 1.0 35V

C8 0.1 50V R23 100 C9 1.0 35V

R6 121 R5 432 R7 100 C11 6.8 35V CR14 1N4005

C27 1.0 35V C12 1.0 35V C6 1.0 35V C30 1.0 35V C10 1.0 35V

R20 7.15K R18 750 C16 0.1 50V R27 4.32K R28 750 C20 0.1 50V R39 750 R33 4.32K C23 0.1 50V R38 1.62K R37 750 C28 0.1 50V R16 750 R22 1.62K C21 0.1 50V

U1 U3 U4 U2 U5 MC3423 VCC IND DR OUT SEN1 CS SEN2 RA VEE

R40 6.04K R42 3.57K R43 1.62K R41 3.57K R44 1.62K DS2 DS4 DS1 DS3 DS5

R26 47K R17 47K Q2 2N3906 Q1 2N3906

TP3 +24VDC TP4 +14VDC TP2 -14VDC TP5 +6.0VDC TP6 -6.0VDC TP1 GND

FL1 FL5 FL4 FL3 FL2

+24VDC > P2 11

+14VDC > P2 3

+6.0VDC > P2 8

+6.0VDC > P2 1

-6.0VDC > P2 9

-6.0VDC > P2 2

-14VDC > P2 10

115_VAC_RTN > P2 14

115_VAC > P2 7

GND > P2 4

GND > P2 12

GND > P2 5

NOT USED > P2 6

NOT USED > P2 13

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C31 | |
| CR19 | |
| DS5 | |
| FL5 | |
| P3 | |
| Q2 | |
| R44 | R8,25 |
| TP6 | |
| U5 | |
| VR5 | |
| F1 | |

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES IN OHM, 1/4W, 1%.
2. ALL CAPACITOR VALUES IN MICROFARADS, 50V.
3. P1 CONNECTOR GOES TO SCD 00-901148 TO COMPLETE POWER SUPPLY.

-01 SHOWN

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS, INC. WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS, INC. UPON DEMAND

BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS, INC FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | |
|---|---|
| 00-879391 | 9800 |
| NEXT ASSY | USED ON |
| APPLICATION | |

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:

FRACTIONS: ±---

DECIMALS: .XX±---
.XXX±---

ANGLE: ±---

MATERIAL ---

FINISH ---

DO NOT SCALE DRAWING

| | APPROVED | DATE |
|---|---|---|
| DRAWN | K. MAHON | 09-10-96 |
| CHECKED | J. JOHNSON | 10-04-96 |
| ENGINEERING | K. KOONS | 10-04-96 |
| ISSUED | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: SCH, PWR, SPLY, MULTI-OUTPUT, 9800

SIZE D | DWG NO. 00-879389 | REV A1

SCALE: 1/1 | SHEET 1 OF 1

| DWG NO. 00-879720 | SHT 1 | REV C |
|---|---|---|

| M | ENGIN. REV. 6.1 REVISIONS | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO AY84 | 3/20/98 | C. BALL |
| A1 | REVISED PER ECO BK99 | 4/01/98 | C. BALL |
| A2 | REVISED PER ECO BN24 | 1/13/99 | C. BALL |
| B | REVISED PER ECO BR85 | 1/15/99 | C. BALL |
| B1 | REVISED PER ECO BY73 | 5/5/99 | C. BALL |
| B2 | REVISED PER ECO CA92 IN PROCESS | 5/21/99 | C. BALL |
| C | REVISED PER ECO CG43 | 12/28/99 | C. BALL |

FILAMENT REGULATOR

FILAMENT DRIVE

FILAMENT SELECTION

PRECHARGE

OVERVOLTAGE PROTECTION

| | | |
|---|---|---|
| 00-879720-04 | SCH, PCB, FILAMENT DRIVER, 9800 | |
| 00-879721-03 | PCB, FILAMENT DRIVER, A/F | |
| 00-879722-60 | SPEC, PERF, PCB,FILAMENT DRVR | |
| 00-879775-01 | HEAT SINK, FILAMENT DRVR | |
| 00-879983-01 | BRKT, FILAMENT DRVR, 9800 | |
| 00-880313-01 | CLAMP, COMPONENT, SMALL, 9800 | |
| 00-900478-25 | TUBING, HEAT SHRINKABLE, 3/8, BLK | |
| 00-900478-31 | TUBING, HEAT SHRINKABLE, 1/2, BLK | |
| 00-901187-01 | INSULATOR, HEAT SINK SCD FIL DRVR | |
| 12-225104-06 | SCR,SEMS SPR,PAN,TRX,4-40,3/8,SZC 2 | |
| 12-225106-06 | SCR,SEMS SPR,PAN,TRX,6-32,3/8,SZC 2 | |
| 12-225106-20 | SCR,SEMS SPR,PAN,TRX,6-32,1,SZC 5 | |
| 12-225108-06 | SCR,SEMS SPR,PAN,TRX,8-32,3/8,SZC 2 | |
| 13-311104-00 | NUT,HEX-LK-EXT-T,4-40,SST,NA,A-.250 2 | |
| 88-299284-00 | ADH,SLT,PRP,BTL,10CC,222-21 | |
| 00-880312-01 | CLAMP, COMPONENT, LARGE, 9800 | |

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES ARE IN OHMS, 0.25W, 1%
2. ALL CAPACITOR VALUES ARE IN MICROFARADS, 50V

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C12 | |
| CR23 | |
| DS1 | |
| K6 | |
| L1 | |
| P5 | |
| Q11 | |
| R46 | |
| T1 | |
| TP48 | |
| VR1 | |

CONNECTOR PINOUTS

P1

| | | | |
|---|---|---|---|
| 24V_INTERLOCK | 1 | 3 | CONTACT_RLY* |
| PRE_CHRG* | 2 | 4 | CONTACT* |

P2

| | | | |
|---|---|---|---|
| GND | 1 | 2 | FILDRA* |
| FILDRB* | 3 | 4 | POS_12V |
| FIL_REG_BASE | 5 | 6 | GND |
| INV_B_SN_DIV | 7 | 8 | FIL_B_SN_DIV |
| GND | 9 | 10 | FIL_VOLT_DIV |
| GND | 11 | 12 | KVP_FLUX_DIV |
| TNK_CHAS | 13 | 14 | HV_GEN_ON_OUT* |
| SM_SEL* | 15 | 16 | LG_SEL* |
| INTLK_CMPLT* | 17 | 18 | FIL_SELECT |
| FIL_RTN | 19 | 20 | BGND |

P3

| | | | |
|---|---|---|---|
| KVP_FLUX_SEN | 1 | 4 | SM_FIL |
| TNK_CHAS | 2 | 5 | FIL_RTN |
| NC | 3 | 6 | LG_FIL |

P4

| | | | | |
|---|---|---|---|---|
| BAT_POS_F4 | 1 | 2 | 3 | CAP_POS |
| | 4 | 5 | 6 | R_DIS |
| 24V_INTERLOCK | 7 | 8 | 9 | CAP_NEG |

CONTACT_RLY*

P5

| | |
|---|---|
| AC_CAP | 1 |
| | 2 |
| AC_CAP_RTN | 3 |

-04 SHOWN
-03 INACTIVE
-02 INACTIVE
-01 INACTIVE

_DRAWING
ACTIVE_BOMS=-24
LAST_MODIFIED=Tue Dec 28 10:56:03 1999

ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | | |
|---|---|---|---|
| | | CONTRACT NO. | |
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | MATERIAL / FINISH |
| 00-879722 | 9800 | | |
| NEXT ASSEMBLY | USED ON | | |
| APPLICATION | | DO NOT SCALE DRAWING | |

| | APPROVED | DATE |
|---|---|---|
| DRAWN | M. WILLCOCKS | 9/16/96 |
| CHECKED | L. ANDERTON | 9/19/96 |
| ENGINEERING | M. WILLCOCKS | 9/19/96 |
| APPROVED | | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: SCH, PCB, FILAMENT DRIVER, 9800

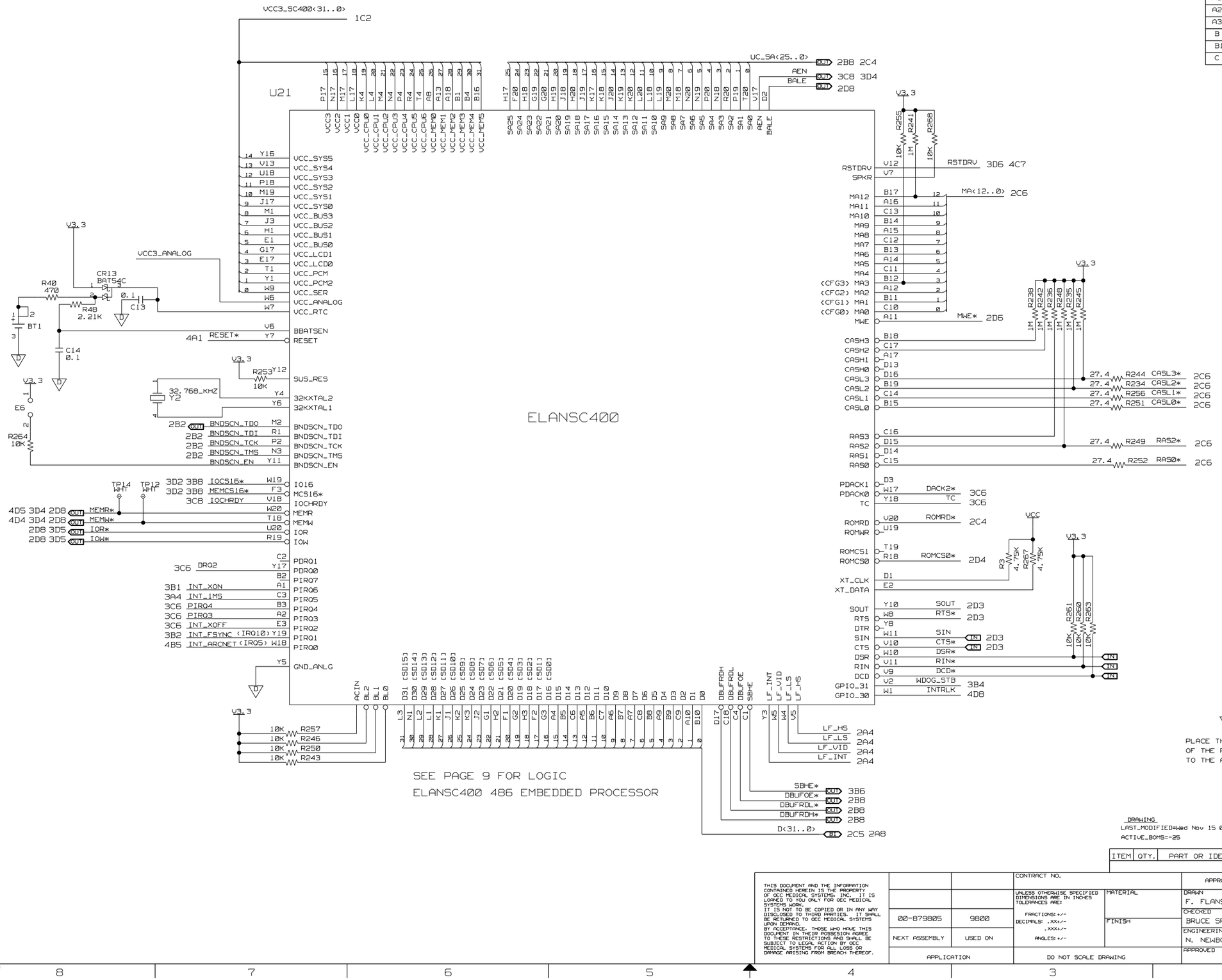
SIZE D | DWG NO. 00-879720 | REV C

SCALE: NONE | SHEET 1 OF 1

05-016-9/93

| DWG NO. | 00-879803 | SHT 1 | REV C |
|---|---|---|---|

| M | ENGIN. REV. 6 | REVISIONS | | EDR 01346 |
|---|---|---|---|---|
| REV | DESCRIPTION | | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO AW69 | | 2-23-98 | C. BALL |
| A1 | REVISED PER ECO BC38 | | 4-27-98 | C. BALL |
| A2 | REVISED PER ECO BL58 | | 9-18-98 | C. BALL |
| A3 | REVISED PER ECO CC50 | | 7-16-99 | C. BALL |
| B | REVISED PER ECO CM17 | | 6-15-00 | M. SARGENT |
| B1 | REVISED PER ECO CR05 | | 11-15-00 | M. SARGENT |
| C | REVISED PER ECO CV50 | | | |




00-879803-05 SCH, PCB, 486 X-RAY CONTROLLER

00-879804-03 PCB, 486 X-RAY CONTROLLER, A/F, 9800

00-879805-60 SPEC, PERF, 486 X-RAY CNTL PCB

ASM_U16
00-882719-01 FW ASM, ROM, 9800 XCP

ASM_U37
00-879964-02 ASM, FW, X-RAY CNTLR, PWM, 9800

ASM_U11
00-879962-02 ASM, FW, X-RAY CNTLR, DEC

12-225104-06 SCR, SEMS SPR, PAN, TRX, 4-40, 3/8, SZC

13-121104-00 NUT, HEX, 4-40, SST, MS35649-244, A. 250

22-320200-00 EJTR, PCB, SGL ACTN LVR, .31W, .062

51-452933-00 CONN, RCPT, PRGM/SHRT, 25KT, BLK, .100CT

88-298900-00 CMPD, HS, BTL, 20Z, 250

PLACE THESE CAPACITORS ON THE BOTTOM SIDE
OF THE PCB AS CLOSE AS POSSIBLE TO THE
TO THE APPROPRIATE POWER PINS OF THE DEVICE.

-05 SHOWN
-04 INACTIVE
-03 INACTIVE
-02 INACTIVE
-01 INACTIVE

DRAWING
LAST_MODIFIED=Wed Nov 15 09:54:06 2000
ACTIVE_BOMS=-25

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PARTS LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | MATERIAL | DRAWN F. FLANSBURG | 1-20-97 |
| 00-879805 | 9800 | FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | FINISH | CHECKED BRUCE SPRATT | 1-21-97 |
| NEXT ASSEMBLY | USED ON | | | ENGINEERING N. NEWBOLD | 1-21-97 |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE
486 XRAY CONTROLLER

SIZE D | DWG NO. 00-879803 | REV C

SCALE: NONE | SHEET 1 OF 15

05-016-9/93

## ADDRESS & CONTROL BUFFERS

U18 74ABT16244
R262 470
R247 470
1B8 MEMW*
1B8 MEMR*
3D5 1B8 IOW*
3D5 1B8 IOR*
1D4 BALE
BMEMW* 3B6
BMEMR* 3B6
BIOW* 3B5 3C6 4B7 6C3
BIOR* 3B5 3C6 4B7
ISABALE 3C6
R259 470
U17 74ABT16244
R239 470
1D4 UC_SA<25..0>
SA<25..0> 3B6 3B5 3B8 3C4 3C5 4A7 4C5

## DRAM

U12 DIMM_1MX32 3.3V
1C3 MWE*
1C2 RAS2*
1C2 RAS0*
1C2 CASL3*
1C2 CASL2*
1C2 CASL1*
1C2 CASL0*
NC<RAS3> NC<RAS1>
RAS2 RAS0
CAS3 CAS2 CAS1 CAS0
NC<A11> NC<A10>
1D3 MA<11..0>
D<31..0> 1A4 2A8

## BIOS ROM

TP10 WHT
VCC
U16 27C010
1B3 ROMCS0*
1B3 ROMRD*
R237 10K
XE2 (TRACE ONLY)
128K X 8 EPROM, PINS 1-2
256K X 8 EPROM, PINS 1-2
512K X 8 EPROM, PINS 2-3
PGM<A18> NC<A17>
1D4 UC_SA<25..0>
128KX8 EPROM
8B2 6A1 5A5 3A6 2A7 SD<15..0>

## SERIAL PORT

V3.3
C202 0.1
R200 10K
U2 MAX3222
VDD 5.5V+ SHDN 5.5V- C1+ C1- C2+ C2-
C203 C208 C211 C204 0.1
R217 10K R216 10K
1B3 RTS*
1B3 SOUT
1B3 CTS*
1B3 SIN
T1A T1B T2A T2B R1B R1A R2B R2A EN
RTS TXD CTS RXD GND
J5 - 8
J5 - 2
J5 - 7
J5 - 3
J5 - 9
<SHELL> GND J5 - 10
<SHELL> GND J5 - 11
J5 - 5
R203 470

## SD<> BUFFER

TP17 WHT
U25 74LCX16245
1A4 DBUF0E*
1A4 DBUFRDH*
1A4 DBUFRDL*
OE2 DIR2 [BA] DIR2 [AB] OE1 DIR1 [AB] DIR1 [BA]
A7 A6 A5 A4 A3 A2 A1 A0 BUFFER B7 B6 B5 B4 B3 B2 B1 B0
2C5 1A4 D<31..16>
V3.3
R15 10K
R6 10K
SD<15..0> 3A6 5A5 6A1 8B2 2C3 3A6 3B5 3D8 4A6 4C5 5A5 5C4 5D5 6B5 6D3

## PLL FILTERS

V3.3
FL2 EMI FL 7A 50V
VCC3_ANALOG
HIGH SPEED PLL
VIDEO PLL
LOW SPEED PLL
INTERMEDIATE PLL
C3 10 16V
C276 0.01
C263 15P
C267 330P
R271 4.75K
C266 33P
C268 470P
R274 4.75K
C264 22P
C279 180P
C269 330P
R273 4.75K
C277 0.01
C278 0.22
R275 4.75K
1A4 LF_HS
1A4 LF_VID
1A4 LF_LS
1A4 LF_INT

## JTAG

1C7 BNDSCN_TDO
1C7 BNDSCN_TDI
1C7 BNDSCN_TMS
1C7 BNDSCN_TCK
P4 - 1 P4 - 2 P4 - 3 P4 - 4 P4 - 5 P4 - 6 P4 - 7 P4 - 8 P4 - 9 P4 - 10

## 3.3V POWER

VCC
FL5 EMI FL 7A 50V
U50 XU50 LT1585 +3.3V
IN OUT GND
TP34 RED
C25 10 16V
C22 68 6.3V
C336 0.01
P1 - 26

DRAWING
LAST_MODIFIED=Mon Nov 6 11:29:40 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 2 OF 15 |

05-017-9/93

## /ISA_BUS CONNECTORS

8B2 6A1 5A5 3A6 2A7 SD<15..0>

J2

| | | | | |
|---|---|---|---|---|
| | IOCHCHK* | A1 | B1 | |
| 7 | A2 | B2 | | RSTDRV → 1D3 |
| 6 | A3 | B3 | | |
| 5 | A4 | B4 | IRQ9 | |
| 4 | A5 | B5 | -5V | |
| 3 | A6 | B6 | | DRQ2 ← 1B7 |
| 2 | A7 | B7 | | |
| 1 | A8 | B8 | SRDY | |
| 0 | A9 | B9 | | |
| | A10 | B10 | KEY | |
| | A11 | B11 | | SMEMW* → 3D2 |
| 19 | A12 | B12 | | SMEMR* → 3D2 |
| 18 | A13 | B13 | | IOW* → 2D7 |
| 17 | A14 | B14 | | IOR* → 2D7 |
| 16 | A15 | B15 | DACK3* | |
| 15 | A16 | B16 | DRQ3 | |
| 14 | A17 | B17 | DACK1* | |
| 13 | A18 | B18 | DRQ1 | |
| 12 | A19 | B19 | REFSH* | |
| 11 | A20 | B20 | SYSCLK | |
| 10 | A21 | B21 | IRQ7 | |
| 9 | A22 | B22 | | PIRQ4 ← 1B7 |
| 8 | A23 | B23 | IRQ5 | |
| 7 | A24 | B24 | | PIRQ3 ← 1B7 |
| 6 | A25 | B25 | | INT_XOFF ← 1B7 3A1 |
| 5 | A26 | B26 | | DACK2* ← 1B3 |
| 4 | A27 | B27 | | TC → 1B3 |
| 3 | A28 | B28 | | ISABALE ← 2D7 |
| 2 | A29 | B29 | | |
| 1 | A30 | B30 | OSC | |
| 0 | A31 | B31 | | |
| | A32 | B32 | | |

3B6 2B7 SA<25..0>

+12V, VCC, -12V

R222 10K, R224 10K, R225 10K, R219 10K

V3.3, R223 10K

1B7 IOCHRDY (OUT)
3D4 1D4 AEN (OUT)

J1

| | | | | |
|---|---|---|---|---|
| | D0 | C0 | | |
| | D1 | C1 | | SBHE* ← 1A4 |
| | D2 | C2 | (LA23) | 23 |
| IRQ10 | D3 | C3 | (LA22) | 22 |
| IRQ11 | D4 | C4 | (LA21) | 21 |
| IRQ12 | D5 | C5 | (LA20) | 20 |
| IRQ15 | D6 | C6 | (LA19) | 19 |
| IRQ14 | D7 | C7 | (LA18) | 18 |
| DACK0* | D8 | C8 | (LA17) | 17 |
| DRQ0 | D9 | C9 | | BMEMR* → 2D7 |
| DACK5* | D10 | C10 | | BMEMW* → 2D7 |
| DRQ5 | D11 | C11 | 8 | |
| DACK6* | D12 | C12 | 9 | |
| DRQ6 | D13 | C13 | 10 | |
| DACK7* | D14 | C14 | 11 | |
| DRQ7 | D15 | C15 | 12 | |
| | D16 | C16 | 13 | |
| MASTER* | D17 | C17 | 14 | |
| | D18 | C18 | 15 | |
| | D19 | C19 | KEY | |

D19 C19

SD<15..0> → 2A7 5A5 6A1 8B2 2C3 3A6 3B5 3D8 4A6 4C5 5A5 5C4 5D5 6B5 6D3

V3.3, VCC, R254 1K, R226 1K, R220 10K, R221 10K, R213 10K, R214 10K

1B7 MEMCS16*
3D2 IOCS16*
1B7 3D2

SA<25..0> → 2B7 3B5 3B8 3C4 3C5 4A7 4C5

SEE PAGE 10 FOR LOGIC
ADDRESS DECODER PLD

U11 7064

| | | | |
|---|---|---|---|
| VCCIO1 | 13 | 78 | VCCIO6 |
| VCCIO2 | 26 | 66 | VCCIO5 |
| VCCIO3 | 38 | 53 | VCCIO4 |
| TRI_EN | 41 | | |
| IOR | 25 | | ← 2D8 1B8 IOR* |
| IOW | 18 | | ← 2D8 1B8 IOW* |
| MEMR | 39 | | ← 1B8 MEMR* |
| MEMW | 37 | | ← 1B8 MEMW* |
| AEN | 16 | | ← 3C8 1D4 AEN |
| SA25 | 36 | | |
| SA24 | 34 | | |
| SA23 | 33 | | |
| SA22 | 29 | | |
| SA21 | 28 | | |
| SA20 | 24 | | |
| SA19 | 27 | | |
| SA18 | 30 | | |
| SA17 | 31 | | |
| SA16 | 35 | | |
| SA15 | 40 | | |
| SA14 | 4 | | |
| SA13 | 5 | | |
| SA12 | 6 | | |
| SA11 | 8 | | |
| SA10 | 23 | | |
| SA9 | 9 | | |
| SA8 | 10 | | |
| SA7 | 11 | | |
| SA6 | 12 | | |
| SA5 | 14 | | |
| SA4 | 22 | | |
| SA3 | 15 | | |
| SA2 | 17 | | |
| SA1 | 20 | | |
| SA0 | 21 | | |
| | | SMEMR | 67 → SMEMR* 3C6 |
| | | SMEMW | 64 → SMEMW* 3C6 |
| | | IOCS16 | 45 → IOCS16* 1B7 3B8 |
| | | MCS16 | 65 → MEMCS16* 1B7 3B8 |
| | | AD_CNVRT | 69 → AD_CONVERT 6A3 |
| | | FLASH1 | 77 → CS_FLASH1* 4D3 |
| | | FLASH0 | 76 → CS_FLASH0* 4D4 |
| | | ROM | 79 → CS_OPTION_ROM* 4D5 |
| | | AD | 54 → CS_AD* 6B3 |
| | | MUX | 57 → WR_MUX* 6B5 |
| | | TIMER1 | 81 → CS_TIMER1* 3B5 |
| | | TIMER0 | 80 → CS_TIMER0* 3C6 |
| | | DIAG | 51 → CS_DIAG* 5B5 |
| | | LED | 62 → CS_LED* 4B4 |
| | | OUT0WR | 56 → CS_OUT0_WR* 5C5 |
| | | OUT0RD | 55 → CS_OUT0_RD* 5D5 |
| | | JUMPER | 61 → CS_JUMPER* 4B5 |
| | | IN1 | 60 → CS_IN1* 8C4 8D4 |
| | | IN0 | 58 → CS_IN0* 5B7 |
| | | DAC3 | 50 → CS_DAC3* 6C3 |
| | | DAC2 | 49 → CS_DAC2* 6C3 |
| | | DAC1 | 71 → CS_DAC1* 6B3 |
| | | DAC0 | 70 → CS_DAC0* 6B3 |
| | | DACS | 52 → CS_DACS 6D3 |
| | | ARCNET | 75 → CS_ARCNET* 4B7 |
| | | CLR_ARC | 73 |
| | | CLR_FS | 74 |
| | | PIN84 | 84 |
| | | PIN48 | 48 |
| | | PIN83 | 83 |
| | | PIN2 | 2 |
| | | PIN1 | 1 |

VCC, C226 0.1, C225 0.1, C224 0.1, C219 0.1, C215 0.1, C216 0.1

TP6 WHT, TP4 WHT

R240 10K

3B6 2B7 SA<25..0>

SEE PAGE 11 FOR LOGIC
PWM PLD

U37 7032

| | | | |
|---|---|---|---|
| TRI_ENA | 12 | | |
| BYP_EN | 40 | | |
| WD_EN | 6 | | ← 4A1 STB_EN |
| STB_IN | 13 | | ← 1B3 WDOG_STB |
| RESET | 9 | | ← 4A1 RESET* |
| CLR_FS | 14 | | |
| FSYNC | 36 | | ← 4C1 INT_SYNC* |
| XRY_F_ON | 41 | | ← 5C1 XRAY_FILM_ON* |
| SW_X_ON | 11 | | ← 5C1 SW_XRAY_ON* |
| X_ON_A | 7 | | |
| PWM | 8 | | ← DUTY_CYC |
| 40KHZ | 16 | | ← 40KHZ |
| 20MHZ | 43 | | ← 4A7 20MHZ |
| PIN1 | 1 | | |
| PIN2 | 2 | | |
| | | STB_OUT | 4 |
| | | DRVA | 26 |
| | | DRVB | 25 |
| | | XRAY_ON | 18 |
| | | INT_FS | 5 → INT_FSYNC 1B7 |
| | | XRAY_TRG | 19 |
| | | FIL_TRG | 24 |
| | | 5MHZ | 21 |
| | | 1250KHZ | 17 |
| | | 156KHZ | 28 |
| | | PIN44 | 44 |
| | | PIN20 | 20 |

TP21 WHT, VCC, R286 10K, R289 10K

E10 XE10 (TRACE ONLY)

R284 470, R283 470

U31 82C54

| | | | |
|---|---|---|---|
| CS | 24 | | ← 3D2 CS_TIMER0* |
| WR | 27 | | ← 2D7 BIOW* |
| RD | 26 | | ← 2D7 BIOR* |
| A1 | 23 | | ← 3B6 2B7 SA<25..0> |
| A0 | 22 | | |
| D7 | 7 | | ← 8B2 6A1 5A5 3A6 2A7 SD<15..0> |
| D6 | 6 | | |
| D5 | 5 | | |
| D4 | 4 | | |
| D3 | 3 | | |
| D2 | 2 | | |
| D1 | 1 | | |
| D0 | 0 | | |
| CLK2 | 21 | | ← VCC |
| GATE2 | 19 | | ← VCC |
| OUT2 | 20 | | |
| CLK1 | 18 | | ← 5MHZ |
| GATE1 | 17 | | ← VCC |
| OUT1 | 16 | | |
| CLK0 | 10 | | ← 5MHZ |
| GATE0 | 13 | | ← VCC |
| OUT0 | 12 | | |

TP26 WHT, TP29 WHT, R27 10K

U32 82C54

| | | | |
|---|---|---|---|
| CS | 24 | | ← 3D2 CS_TIMER1* |
| WR | 27 | | ← 2D7 BIOW* |
| RD | 26 | | ← 2D7 BIOR* |
| A1 | 23 | | ← SA<25..0> |
| A0 | 22 | | ← 2B7 3B6 |
| D7 | 7 | | |
| D6 | 6 | | |
| D5 | 5 | | |
| D4 | 4 | | |
| D3 | 3 | | |
| D2 | 2 | | |
| D1 | 1 | | |
| D0 | 0 | | |
| CLK2 | 21 | | ← 5MHZ |
| GATE2 | 19 | | ← VCC |
| OUT2 | 20 | | |
| CLK1 | 18 | | ← 555KHZ |
| GATE1 | 17 | | |
| OUT1 | 16 | | |
| CLK0 | 10 | | ← 5MHZ |
| GATE0 | 13 | | ← VCC |
| OUT0 | 12 | | |

R8 10K, VCC, INT_1MS 1B7

XRAY_ON_TRG

R95 10K, R98 10K, R101 10K, R305 470

U53 74ABT541

| | | | |
|---|---|---|---|
| OE2 | 19 | | |
| OE1 | 1 | | |
| A7 | 9 | | |
| A6 | 8 | | |
| A5 | 7 | | |
| A4 | 6 | | |
| A3 | 5 | | |
| A2 | 4 | | |
| A1 | 3 | | |
| A0 | 2 | | |
| Y7 | 11 | | |
| Y6 | 12 | | |
| Y5 | 13 | | |
| Y4 | 14 | | |
| Y3 | 15 | | |
| Y2 | 16 | | |
| Y1 | 17 | | |
| Y0 | 18 | | |

8A4 XRAY_ENABLE* → XRAY_EN_LED* 5B3

TP33 WHT, TP28 WHT, TP38 WHT, TP32 WHT

CR15 SMDA05

FIL_DRV_A* → P1 - 33
FIL_DRV_B* → P1 - 34
XRAY_ON* → P1 - 22
HF_SYNC(120KHZ) → P1 - 61
XRAY_ON* → 8B6
FIL_DRV_RTN → P1 - 32

WDOG_TMR 4A2

U29 74ACT14 → INT_XON 1B7

INT_XOFF 3C5

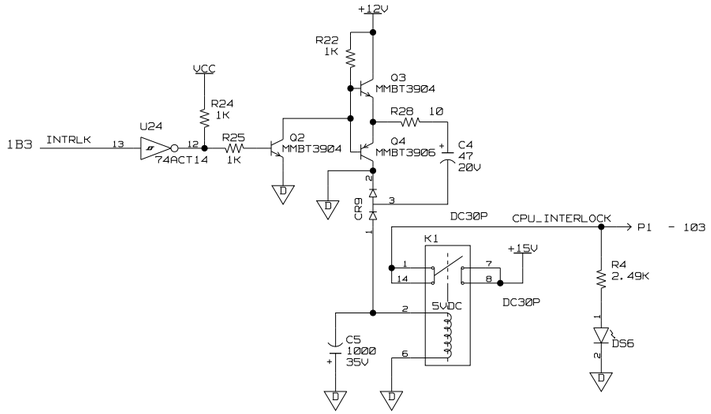
DRAWING
LAST_MODIFIED=Mon Nov 6 11:30:25 2000

OEC MEDICAL SYSTEMS, INC.

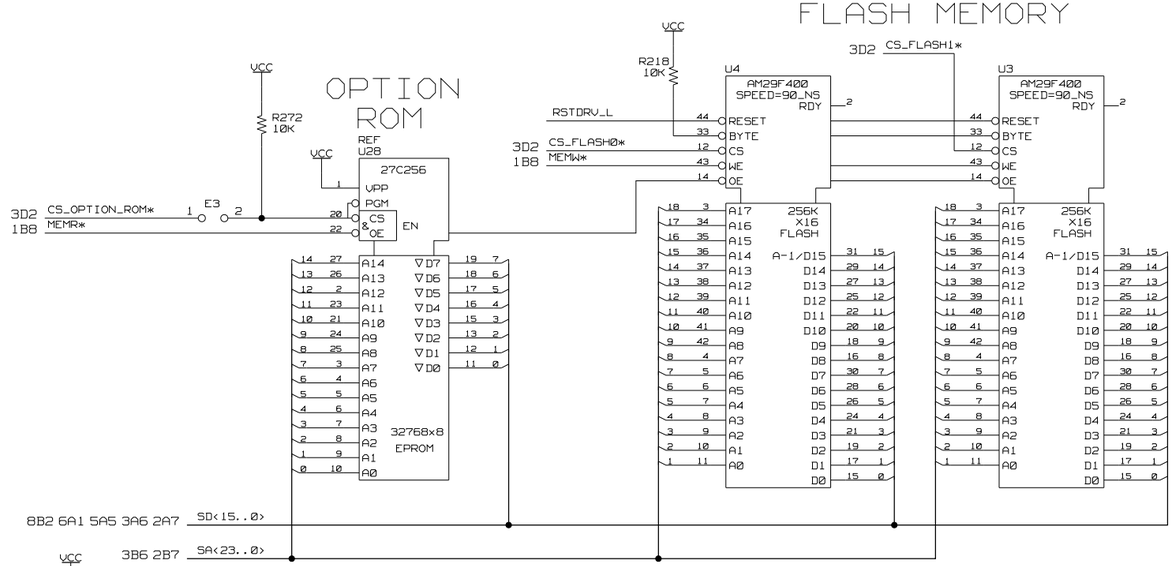
| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 3 OF 15 |

05-017-9/93

# INTERLOCKS

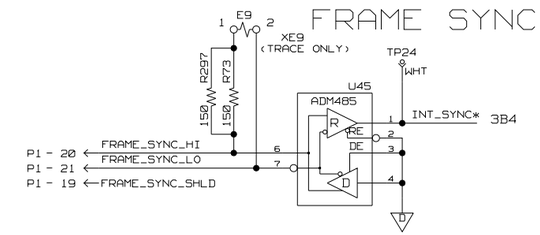



# FLASH MEMORY

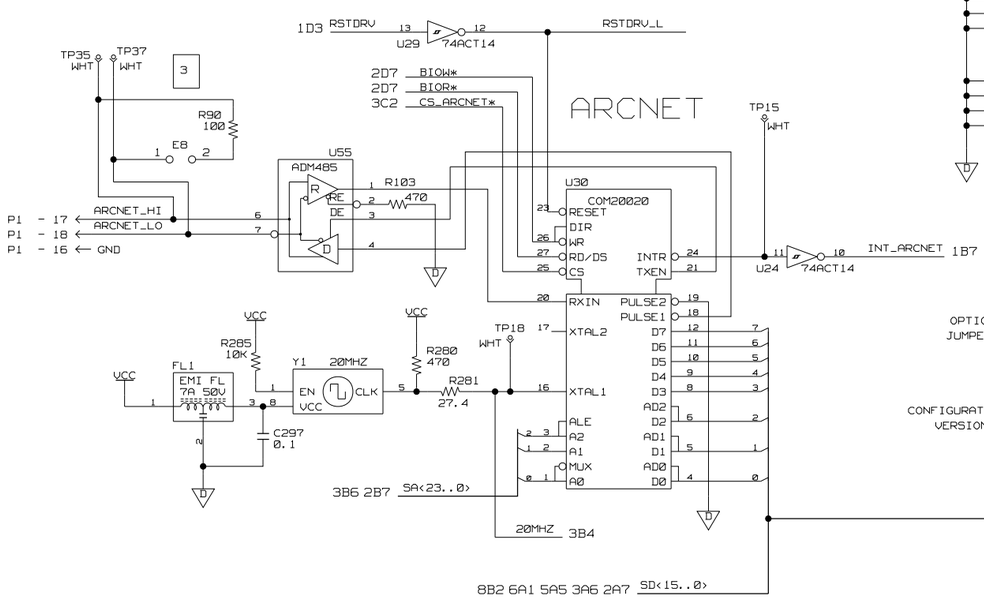



# OPTION ROM

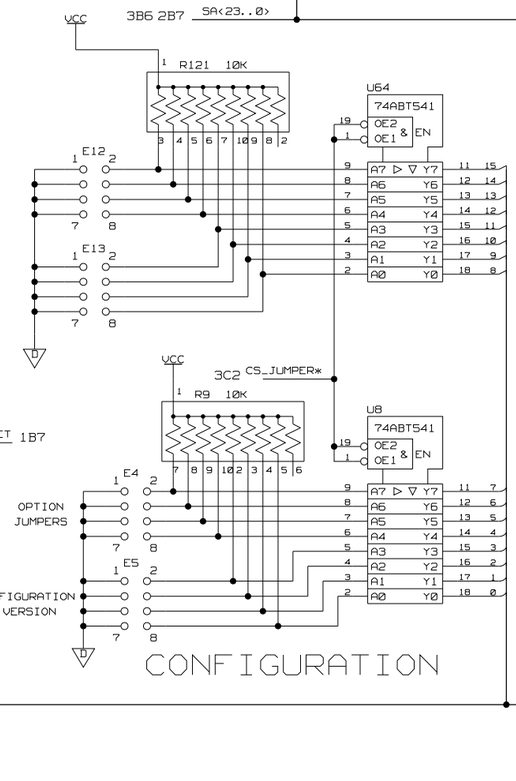
# FRAME SYNC



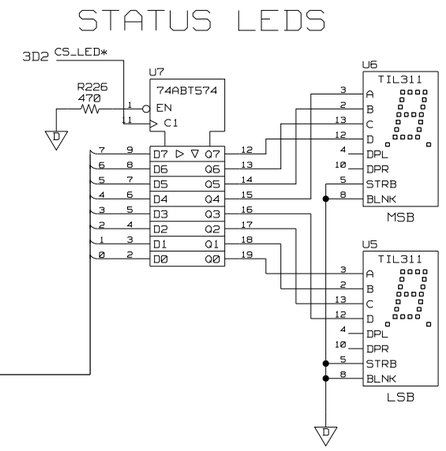

# ARCNET



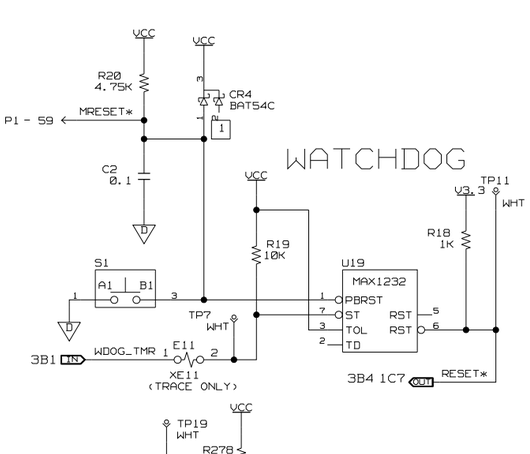

# CONFIGURATION




# STATUS LEDS




# WATCHDOG

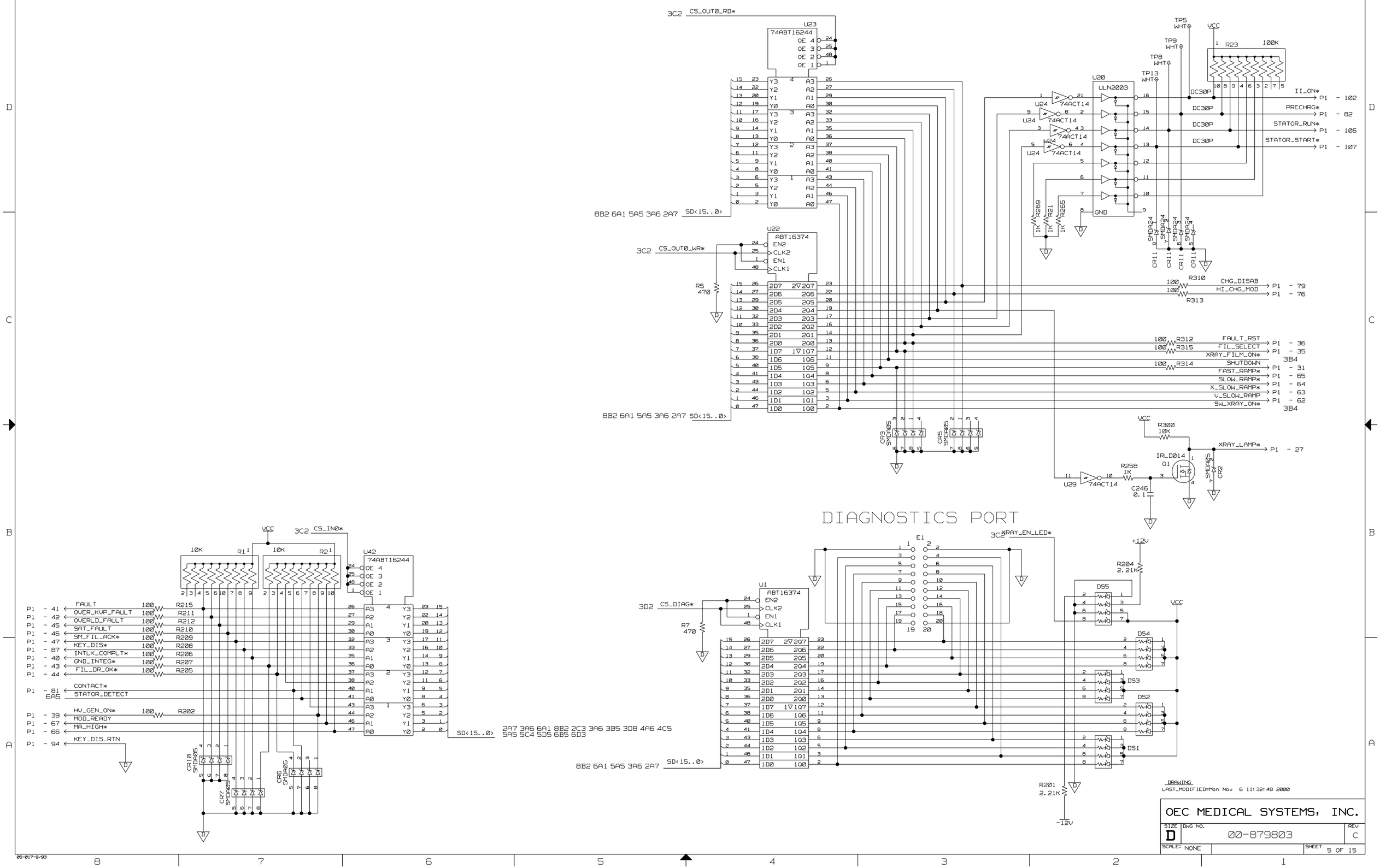



DRAWING
LAST_MODIFIED=Mon Nov 6 11:32:06 2000

| OEC MEDICAL SYSTEMS, INC. | | |
|---|---|---|
| SIZE D | DWG NO. 00-879803 | REV C |
| SCALE: NONE | | SHEET 4 OF 15 |

05-017-9/93

# DIAGNOSTICS PORT




DRAWING
LAST_MODIFIED=Mon Nov 6 11:32:48 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 5 OF 15 |

05-017-9/93

# A/D CIRCUITRY

# D/A CIRCUITRY

P1 - 75 LINE_V_SEN
P1 - 80 CHRG_REF
P1 - 78 CHRG_I_SEN
P1 - 54 FIL_VOLT
P1 - 55 FIL_VOLT_REF
P1 - 52 FIL_CUR
P1 - 53 FIL_CUR_REF
P1 - 56 FLUX_SEN
P1 - 57 FLUX_SEN_REF
P1 - 50 FIL_B_SEN
P1 - 51 FIL_B_SEN_REF
P1 - 48 INV_B_SEN
P1 - 49 INV_B_SEN_REF
P1 - 68 HI_MA_SEN
P1 - 69 HI_MA_SEN_REF
P1 - 70 LO_MA_SEN
P1 - 71 LO_MA_SEN_REF
P1 - 72 KVP_SEN
P1 - 73 KVP_SEN_REF
P1 -108 STATOR_SEN
P1 -109 STATOR_SEN_RTN
P1 - 86 HSNG_TEMP_RTN
P1 - 85 HSNG_TEMP

U51 U52 U44 U43 U39 U38 LF412C
U48 ADG426
U29 74ACT14
U49 OP177
U26 74ABT16373
U40 U33 AD7547
U34 U35 LF412C
U36 AD680 +2.500V
VR2 AD587 +10.000V
U54 OP27
U46 ADS774
U27 74ABT16244

3C2 CS_DACS
8B2 6A1 5A5 3A6 2A7 SD<15..0>
DA_BUS<11..0>
2D7 BIOW*
3C2 CS_DAC3*
3C2 CS_DAC2*
3C2 CS_DAC1*
3C2 CS_DAC0*
3D2 WR_MUX*
6C1 TEST_DA
6C1 FIL_B_CNTL
6B1 KVP_CNTL
3D2 CS_AD*
3D2 AD_CONVERT

TEST_DA 6B5
FIL_ERROR → P1 - 58
FIL_B_CNTL 6B5
FIL_B_CNTL → P1 - 37
FIL_B_CNTL_REF → P1 - 38
KVP_CNTL 6B5
KVP_CNTL → P1 - 24
ANALOG_RTN → P1 - 25
STATOR_DETECT 5A8
SD<15..0> 5D5 6B5 6D3 3A7 3A6 5A5 8B2 2C3 3A6 3B5 3D8 4A8 4C5 5A5 5C4

TP20 RED
TP30 WHT
TP39 BLK
TP36 RED

DRAWING
LAST_MODIFIED=Mon Nov 6 11:33:23 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 6 OF 15 |

05-017-9/93

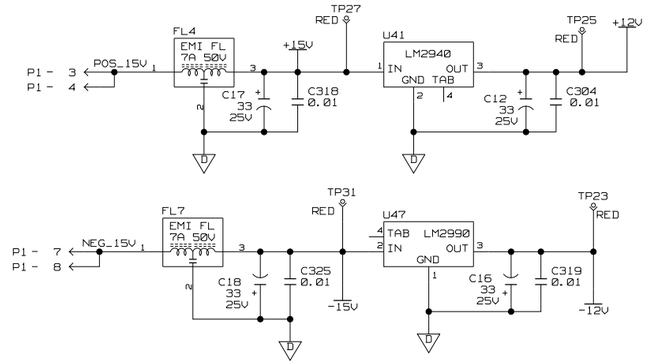
| REF DES | DEVICE | GND | +5V | UNUSED |
|---|---|---|---|---|
| U25 | 74LXC16245 | 7, 19, 32, 42 47, 59, 72, 82 | 3, 43 | |
| U11 | EPM7064 | 7, 19, 32, 42 47, 59, 72, 82 | 3, 43 | |
| U17, 18, 23, 27, 42 | ABT16244 | 4, 10, 15, 21 28, 34, 39, 45 | 7, 18, 31, 42 | |
| U1, 22 | ABT16374 | 4, 10, 15, 21 28, 34, 39, 45 | 7, 18, 31, 42 | |
| U26 | ABT16373 | 4, 10, 15, 21 28, 34, 39, 45 | 7, 18, 31, 42 | |
| U8, 9, 53, 64 | ABT541 | 10 | 20 | |
| U7 | ABT574 | 10 | 20 | |
| U20 | ULN2003 | 8 | N/A | |
| U10, 24, 29, U59, 61 | 74ACT14 | 7 | 14 | |
| U45, 55 | ADM485 | 5 | 8 | |
| U3, 4 | AM29F400 | 13 32 | 23 | |
| U30 | COM20020 | 7, 14, 22 | 15, 28 | |
| U37 | EPM7032 | 10, 22, 30, 42 | 3, 15, 23, 35 | |
| U19 | MAX1232 | 4 | 8 | |
| U13-15, 56, 57 U58, 60, 63 | OPTP_I_0661 | 5 | 8 | |
| Y1 | OSC | 4 | | |
| U5, 6 | TIL311 | 7 | 14 | |
| U31, 32 | 82C54 | 12 | 28 | |
| U28 | 27C256 | 14 | 28 | |
| U16 | 27C010 | 16 | 32 | |

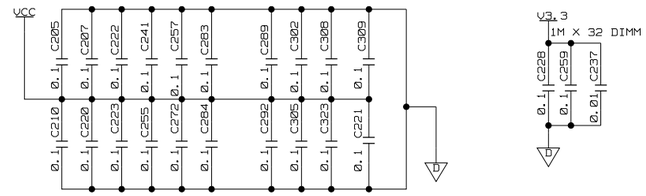
REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| BT1 | |
| C349 | C26-199 |
| CR16 | |
| DS6 | |
| E12 | E7 |
| FL7 | |
| J5 | J3, 4 |
| K1 | |
| P4 | P1-3 |
| Q4 | |
| R319 | R30-32, 57, 122-199 |
| S1 | |
| TP39 | |
| U64 | |
| VR2 | VR1 |
| XU50 | XU1-10, 13-15, 17-27, 29-36, 38-49 |
| Y2 | |
| F1 | |

| REF DES | DEVICE | DGND | +3.3V | | | | UNUSED |
|---|---|---|---|---|---|---|---|
| U2 | MAX3222 | 16 | 17 | | | | |
| U12 | 1M X 32 DIMM | 1 39 72 | 10 30 61 | | | | |

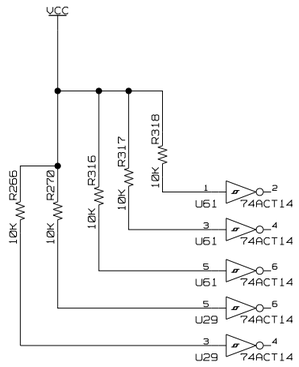
# DC POWER







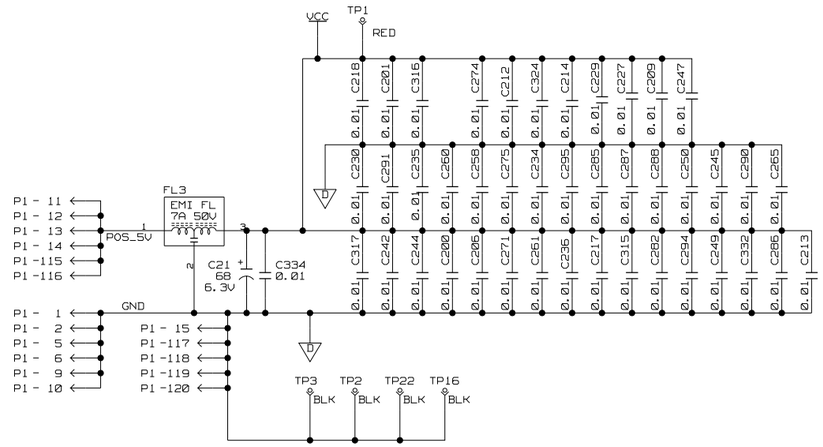



P1 - 28 ← SPARE
P1 - 29 ← SPARE
P1 - 30 ← SPARE

P1 - 60 ← SPARE
P1 - 74 ← SPARE
P1 - 77 ← SPARE
P1 - 83 ← SPARE

SPARE
SPARE
SPARE
P1 -110 ← SPARE

P1 -112 ← SPARE
P1 -113 ← SPARE
P1 -114 ← SPARE




NOTES

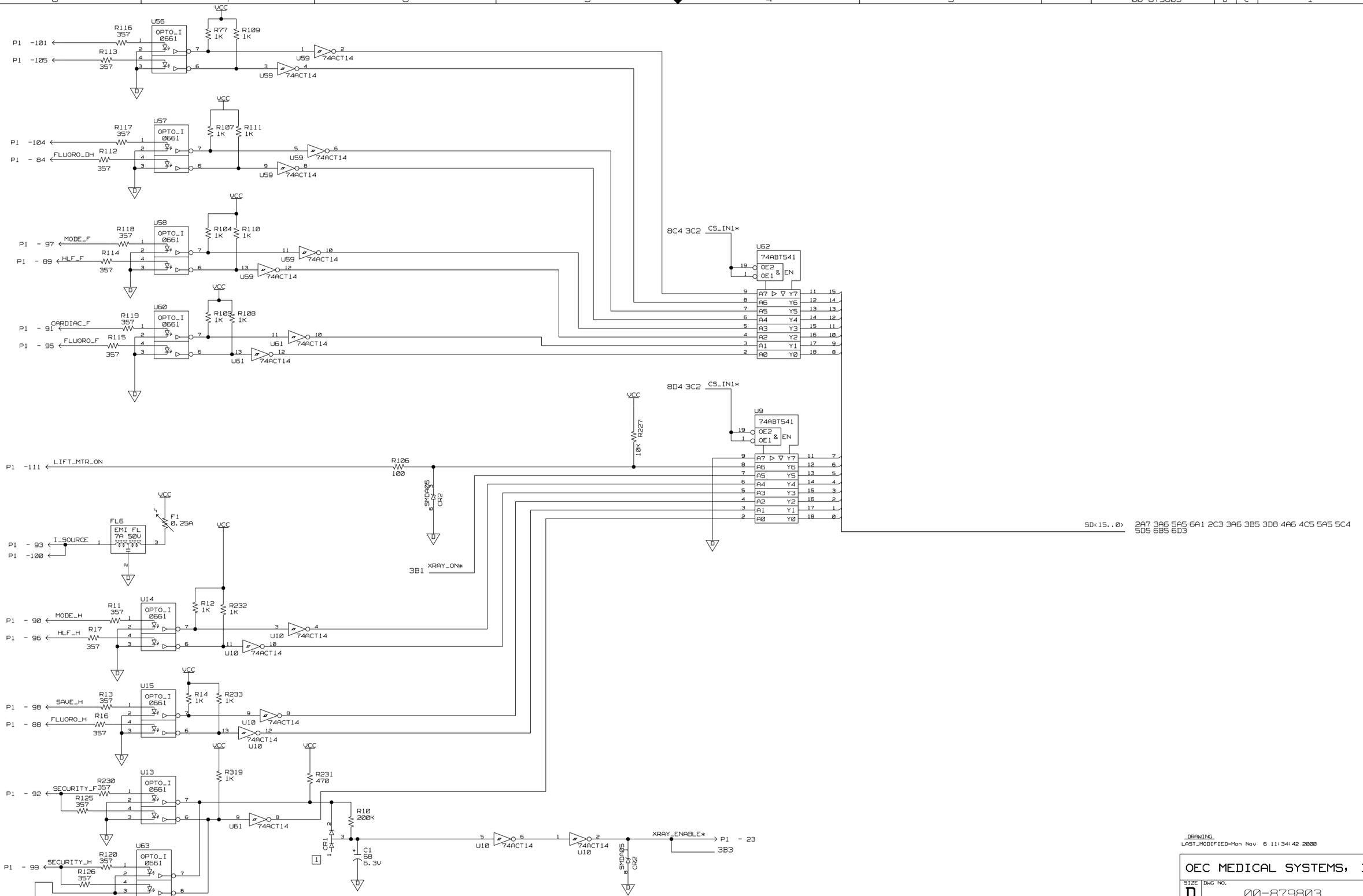
1. LEAD NOT CONNECTED, SINCE ADDITIONAL COMPONENT IN PACKAGE IS NOT USED.
2. USE 0.1UF CAPS TO BYPASS POWER PINS FOR EPM7032 AND EPM7064.
3. FOR NORMAL OPERATION, SHORTING JUMPER XE8 WILL NOT BE INSTALLED ACROSS E8 SINCE ARCNET WILL BE TERMINATED ON THE FLUORO FUNCTIONS PCB.

DRAWING
LAST_MODIFIED=Mon Nov 6 11:33:58 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 7 OF 15 |

05-017-9/93

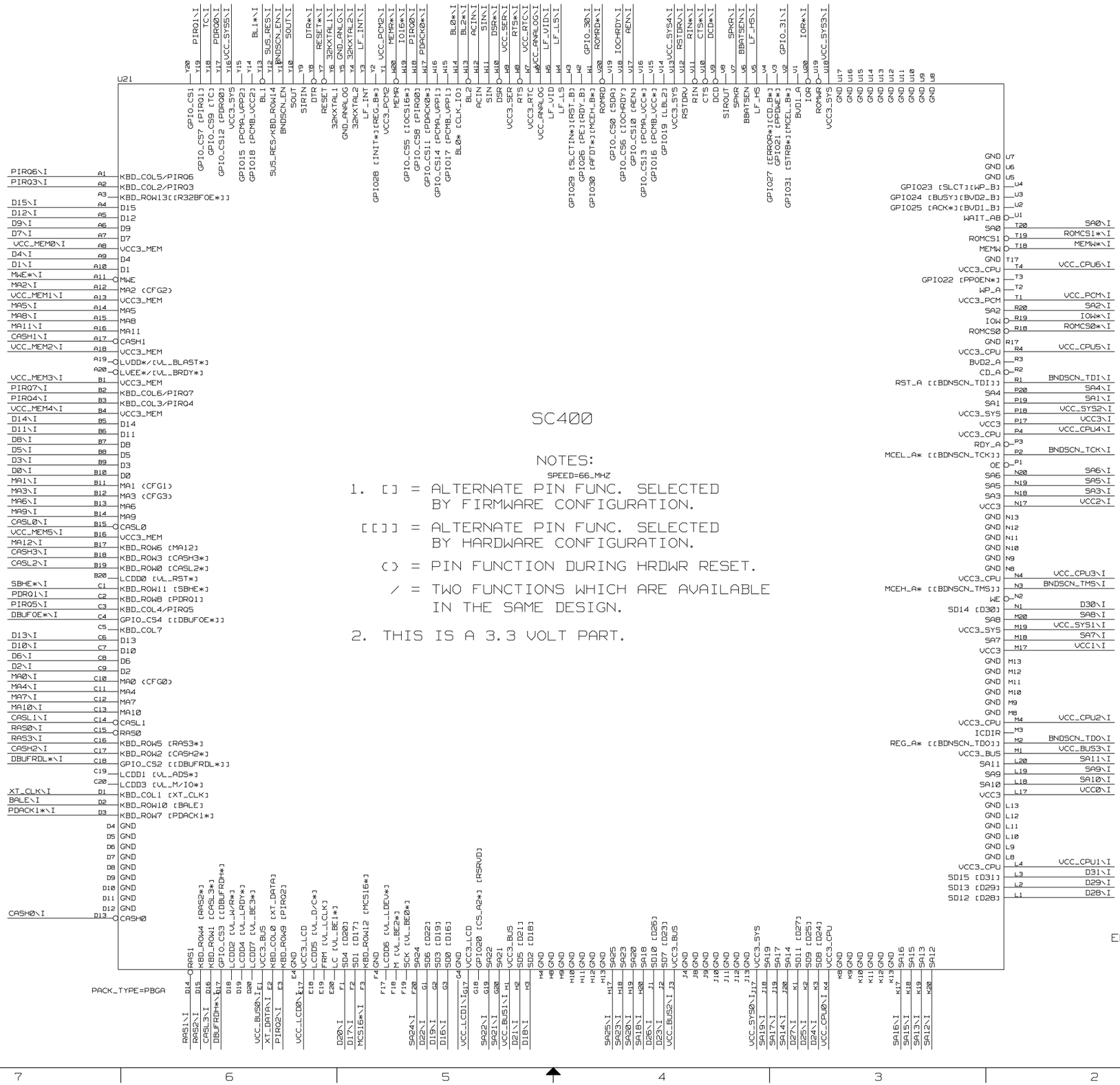



DRAWING
LAST_MODIFIED=Mon Nov 6 11:34:42 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 8 OF 15 |

05-017-9/93




# SC400

## NOTES:

SPEED=66_MHZ

1. [] = ALTERNATE PIN FUNC. SELECTED BY FIRMWARE CONFIGURATION.

[[]] = ALTERNATE PIN FUNC. SELECTED BY HARDWARE CONFIGURATION.

() = PIN FUNCTION DURING HRDWR RESET.

/ = TWO FUNCTIONS WHICH ARE AVAILABLE IN THE SAME DESIGN.

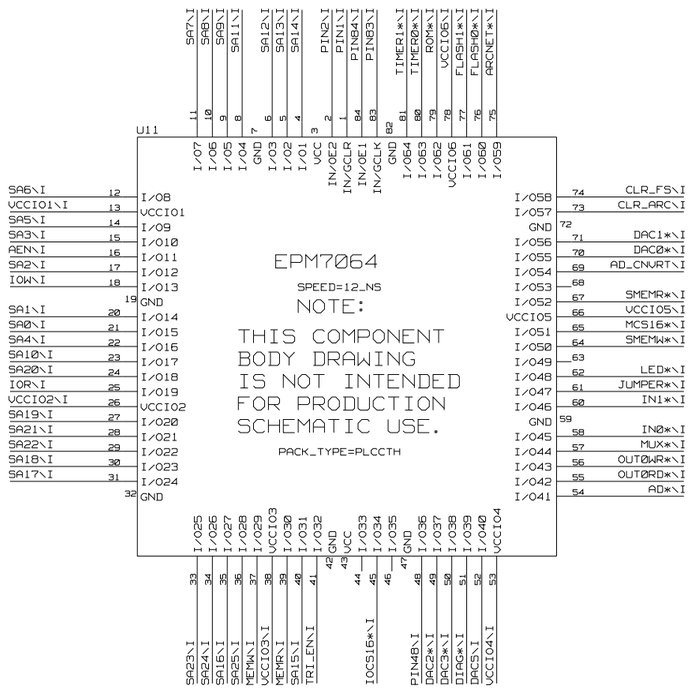
2. THIS IS A 3.3 VOLT PART.

ELANSC400 486 EMBEDDED PROCESSOR

DRAWING
LAST_MODIFIED=Mon Nov 6 11:43:15 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 9 OF 15 |



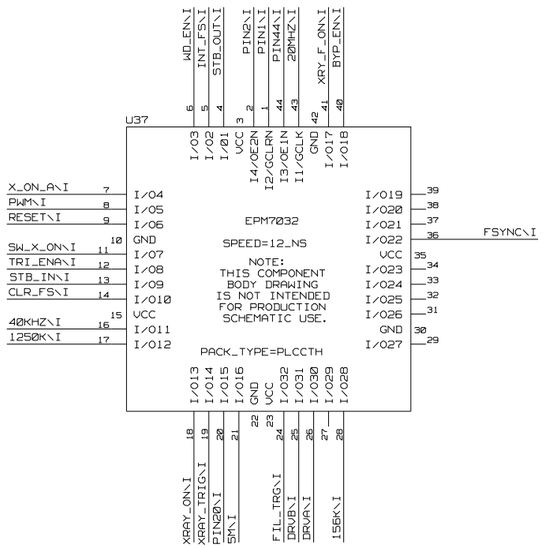

# ADDRESS DECODER PLD

DRAWING
LAST_MODIFIED=Mon Nov 6 11:42:07 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 10 OF 15 |

05-017-9/93




PWM PLD

DRAWING
LAST_MODIFIED=Mon Nov 6 11:42:40 2000

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: NONE | | SHEET 11 OF 15 |

05-817-9/93

*** Signal Cross-Reference ***
--- for the entire design --

| | |
|---|---|
| 5MHZ | 3B4 |
| 20MHZ | 4A7 3B4 |
| 40KHZ | 3B4 |
| 555KHZ | 3B5 |
| AD_CONVERT | 3D2 6A3 |
| AEN | 1D4 3C8 3D4 |
| ARCNET_HI | 4B8 |
| ARCNET_LO | 4B8 |
| BALE | 1D4 2D8 |
| BIOR * | 2D7 3B5 3C6 4B7 |
| BIOW * | 2D7 3B5 3C6 4B7 6C3 |
| BMEMR * | 2D7 3B6 |
| BMEMW * | 2D7 3B6 |
| BNDSCN_EN | 1C7 |
| BNDSCN_TCK | 2B2 1C7 |
| BNDSCN_TDI | 2B2 1C7 |
| BNDSCN_TDO | 1C7 2B2 |
| BNDSCN_TMS | 2B2 1C7 |
| CARDIAC_F | 8C8 |
| CASL0 * | 1C2 2C6 |
| CASL1 * | 1C2 2C6 |
| CASL2 * | 1C2 2C6 |
| CASL3 * | 1C2 2C6 |
| CHG_DISAB | 5C1 |
| CHRG_I_SEN | 6D8 |
| CHRG_REF | 6D8 |
| CONTACT * | 5A8 |
| CPU_INTERLOCK | 4D6 |
| CS_AD * | 3D2 6B3 |
| CS_ARCNET * | 3C2 4B7 |
| CS_DAC0 * | 3C2 6B3 |
| CS_DAC1 * | 3C2 6B3 |
| CS_DAC2 * | 3C2 6C3 |
| CS_DAC3 * | 3C2 6C3 |
| CS_DACS | 3C2 6D3 |
| CS_DIAG * | 3D2 5B5 |
| CS_FLASH0 * | 3D2 4D4 |
| CS_FLASH1 * | 3D2 4D3 |
| CS_IN0 * | 3C2 5B7 |
| CS_IN1 * | 3C2 8C4 8D4 |
| CS_JUMPER * | 3C2 4B5 |
| CS_LED * | 3D2 4B4 |
| CS_OPTION_ROM * | 3D2 4D5 |
| CS_OUT0_RD * | 3C2 5D5 |
| CS_OUT0_WR * | 3C2 5C5 |
| CS_TIMER0 * | 3D2 3C6 |
| CS_TIMER1 * | 3D2 3B5 |
| CTS * | 2D3 1B3 |
| D <31..0> | 1A4 2C5 2A8 |
| DACK0 * | 3B8 |
| DACK1 * | 3C7 |
| DACK2 * | 1B3 3C6 |
| DACK3 * | 3C7 |
| DACK5 * | 3B8 |
| DACK6 * | 3B8 |
| DACK7 * | 3A8 |
| DA_BUS <11..0> | 6D2 |
| DBUFOE * | 1A4 2B8 |
| DBUFRDH * | 1A4 2B8 |
| DBUFRDL * | 1A4 2B8 |
| DCD * | 1B3 |
| DRQ2 | 3C6 1B7 |
| DSR * | 1B3 |
| DUTY_CYC | 3B4 |
| FAST_RAMP * | 5C1 |
| FAULT | 5B8 |
| FAULT_RST | 5C1 |
| FIL_B_CNTL | 6C1 6B5 |
| FIL_B_CNTL_REF | 6B1 |
| FIL_B_SEN | 6B8 |
| FIL_B_SEN_REF | 6B8 |
| FIL_CUR | 6C8 |
| FIL_CUR_REF | 6C8 |
| FIL_DRV_A * | 3B1 |
| FIL_DRV_B * | 3B1 |
| FIL_DRV_RTN | 3B1 |
| FIL_DR_OK * | 5A8 |
| FIL_ERROR | 6C1 |
| FIL_SELECT | 5C1 |
| FIL_VOLT | 6C8 |
| FIL_VOLT_REF | 6C8 |
| FLUORO_DH | 8D8 |
| FLUORO_F | 8C8 |
| FLUORO_H | 8A8 |
| FLUX_SEN | 6C8 |
| FLUX_SEN_REF | 6B8 |
| FRAME_SYNC_HI | 4B2 |
| FRAME_SYNC_LO | 4B2 |
| GND_INTEG * | 5A8 |
| HF_SYNC(120KHZ) | 3B1 |
| HI_CHG_MOD | 5C1 |
| HI_MA_SEN | 6D6 |
| HI_MA_SEN_REF | 6D6 |
| HLF_F | 8C8 |
| HLF_H | 8B8 |
| HSNG_TEMP | 6A8 |
| HSNG_TEMP_RTN | 6A8 |
| HV_GEN_ON * | 5A8 |
| II_ON * | 5D1 |
| INTLK_COMPLT * | 5A8 |
| INTRLK | 1B3 4D8 |
| INT_1MS | 3A4 1B7 |
| INT_ARCNET | 4B5 1B7 |
| INT_FSYNC | 3B2 1B7 |
| INT_SYNC * | 4C1 3B4 |
| INT_XOFF | 3C6 1B7 3A1 |
| INT_XON | 3B1 1B7 |
| INV_B_SEN | 6D6 |
| INV_B_SEN_REF | 6D6 |
| IOCHRDY | 3C8 1B7 |
| IOCS16 * | 3B8 3D2 1B7 |
| IOR * | 1B8 3D5 2D8 |
| IOW * | 1B8 3D5 2D8 |
| ISABALE | 2D7 3C6 |
| I_SOURCE | 8B8 |
| KEY_DIS * | 5A8 |
| KEY_DIS_RTN | 5A8 |
| KVP_CNTL | 6B1 6B5 |
| KVP_SEN | 6C6 |
| KVP_SEN_REF | 6C6 |
| LF_HS | 1A4 2A4 |
| LF_INT | 1A4 2A4 |
| LF_LS | 1A4 2A4 |
| LF_VID | 1A4 2A4 |
| LIFT_MTR_ON | 8B8 |
| LINE_V_SEN | 6D8 |
| LO_MA_SEN | 6C6 |
| LO_MA_SEN_REF | 6C6 |
| MA <12..0> | 1D3 2C6 |
| MA_HIGH * | 5A8 |
| MEMCS16 * | 3B8 3D2 1B7 |
| MEMR * | 1B8 2D8 3D4 4D5 |
| MEMW * | 1B8 2D8 3D4 4D4 |
| MODE_F | 8C8 |
| MODE_H | 8B8 |
| MOD_READY | 5A8 |
| MRESET * | 4B2 |
| MWE * | 1C3 2D6 |
| NEG_15V | 7C3 |
| OVERLD_FAULT | 5B8 |
| OVER_KVP_FAULT | 5B8 |
| PIRQ3 | 3C6 1B7 |
| PIRQ4 | 3C6 1B7 |
| POS_5V | 7B3 |
| POS_15V | 7D3 |
| PRECHRG * | 5D1 |
| RAS0 * | 1C2 2C6 |
| RAS2 * | 1C2 2C6 |
| RESET * | 4A1 1C7 3B4 |
| RIN * | 1B3 |
| ROMCS0 * | 1B3 2D4 |
| ROMRD * | 1B3 2C4 |
| RSTDRV | 1D3 3D6 4C7 |
| RSTDRV_L | 4C6 4D4 |
| RTS * | 1B3 2D3 |
| SA <25..0> | 2B7 3B6 3B5 3B8 3C4 3C5 4A7 4C5 |
| SAT_FAULT | 5B8 |
| SAVE_H | 8A8 |
| SBHE * | 1A4 3B6 |
| SD <15..0> | 2A7 3A6 5A5 6A1 8B2 2C3 3A6 3B5 3D8 4A6 4C5 5A5 5C4 5D5 6B5 6D3 |
| SECURITY_F | 8A8 |
| SECURITY_H | 8A8 |
| SHUTDOWN | 5C1 |
| SIN | 2D3 1B3 |
| SLOW_RAMP * | 5C1 |
| SMEMR * | 3D2 3C6 |
| SMEMW * | 3D2 3C6 |
| SM_FIL_ACK * | 5B8 |
| SOUT | 1B3 2D3 |
| STATOR_DETECT | 5A8 6A5 |
| STATOR_RUN * | 5D1 |
| STATOR_SEN | 6A8 |
| STATOR_SEN_RTN | 6A8 |
| STATOR_START * | 5D1 |
| STB_EN | 4A1 3B4 |
| SW_XRAY_ON * | 5C1 3B4 |
| TC | 1B3 3C6 |
| TEST_DA | 6C1 6B5 |
| UC_SA <25..0> | 1D4 2B8 2C4 |
| VCC3_ANALOG | 1C8 2B4 |
| VCC3_SC400 <31..0> | 1D6 1C2 |
| V_SLOW_RAMP | 5C1 |
| WDOG_STB | 1B3 3B4 |
| WDOG_TMR | 3B1 4A2 |
| WR_MUX * | 3D2 6B5 |
| XRAY_ENABLE * | 8A4 3B3 |
| XRAY_EN_LED * | 3C2 5B3 |
| XRAY_FILM_ON * | 5C1 3B4 |
| XRAY_LAMP * | 5B1 |
| XRAY_ON * | 3B1 8B6 |
| XRAY_ON_TRG | 3B3 |
| X_SLOW_RAMP * | 5C1 |

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: | | SHEET 12 OF 15 |

05-017-9/93

*** Unit Cross-Reference ***
--- for the entire design --

ASM_U11 ADDONS 1D2
ASM_U16 ADDONS 1D2
ASM_U37 ADDONS 1D2
BT1 BATTERY_3V_74122905 1C8
C1 TASMT_7343 8A6
C2 CERSMT_1206 4B2
C3 TASMT_6032 2B4
C4 TASMT_7343 4D7
C5 ALA_1000U_41516758 4C7
C6 CERSMT_1206 6C2
C7 CERSMT_1206 6B2
C8 CERSMT_1206 6B4
C9 CERSMT_1206 6C2
C10 CERSMT_1206 6B2
C11 CERSMT_1206 6A5
C12 TASMT_7343 7D2
C13 CERSMT_1206 1C8
C14 CERSMT_1206 1C8
C15 TASMT_7343 6A7
C16 TASMT_7343 7C2
C17 TASMT_7343 7D3
C18 TASMT_7343 7C3
C19 TASMT_7343 6A7
C20 TASMT_6032 6B3
C21 TASMT_7343 7B3
C22 TASMT_7343 2A1
C23 CERSMT_1206 6A4
C24 CERSMT_1206 6D1
C25 TASMT_6032 2A2
C200 CERSMT_1206 7B2
C201 CERSMT_1206 7B2
C202 CERSMT_1206 2D2
C203 CERSMT_1206 2D1
C204 CERSMT_1206 2D2
C205 CERSMT_1206 7C3
C206 CERSMT_1206 7B2
C207 CERSMT_1206 7C3
C208 CERSMT_1206 2D1
C209 CERSMT_1206 7B2
C210 CERSMT_1206 7C3
C211 CERSMT_1206 2D1
C212 CERSMT_1206 7B2
C213 CERSMT_1206 7B1
C214 CERSMT_1206 7B2
C215 CERSMT_1206 3D3
C216 CERSMT_1206 3D3
C217 CERSMT_1206 7B2
C218 CERSMT_1206 7B3
C219 CERSMT_1206 3D3
C220 CERSMT_1206 7C3
C221 CERSMT_1206 7C2
C222 CERSMT_1206 7C3
C223 CERSMT_1206 7C3
C224 CERSMT_1206 3D4
C225 CERSMT_1206 3D4
C226 CERSMT_1206 3D4
C227 CERSMT_1206 7B2
C228 CERSMT_1206 7C2
C229 CERSMT_1206 7B2
C230 CERSMT_1206 7B3
C231 CERSMT_1206 1B1
C232 CERSMT_1206 1B2
C233 CERSMT_1206 1C2
C234 CERSMT_1206 7B2
C235 CERSMT_1206 7B2
C236 CERSMT_1206 7B2
C237 CERSMT_1206 7C1
C238 CERSMT_1206 1C1
C239 CERSMT_1206 1C2
C240 CERSMT_1206 1B1
C241 CERSMT_1206 7C3
C242 CERSMT_1206 7B2
C243 CERSMT_1206 1C1
C244 CERSMT_1206 7B2
C245 CERSMT_1206 7B1
C246 CERSMT_1206 5B2
C247 CERSMT_1206 7B2
C248 CERSMT_1206 1B2
C249 CERSMT_1206 7B1
C250 CERSMT_1206 7B2
C251 CERSMT_1206 1B2
C252 CERSMT_1206 1C2
C253 CERSMT_1206 1C1
C254 CERSMT_1206 1C2
C255 CERSMT_1206 7C3
C256 CERSMT_1206 1B1
C257 CERSMT_1206 7C3
C258 CERSMT_1206 7B2
C259 CERSMT_1206 7C2
C260 CERSMT_1206 7B2
C261 CERSMT_1206 7B2
C262 CERSMT_1206 1C1
C263 CERSMT_1206 2A4
C264 CERSMT_1206 2A4
C265 CERSMT_1206 7B1
C266 CERSMT_1206 2A4
C267 CERSMT_1206 2B4
C268 CERSMT_1206 2B4
C269 CERSMT_1206 2B3
C270 CERSMT_1206 1B2
C271 CERSMT_1206 7B2
C272 CERSMT_1206 7C3
C273 CERSMT_1206 1B2
C274 CERSMT_1206 7B2
C275 CERSMT_1206 7B2
C276 CERSMT_1206 2B4
C277 CERSMT_1206 2A3
C278 CERSMT_1210 2B3
C279 CERSMT_1206 2B3
C280 CERSMT_1206 1B2
C281 CERSMT_1206 1B2
C282 CERSMT_1206 7B2
C283 CERSMT_1206 7C3
C284 CERSMT_1206 7C3
C285 CERSMT_1206 7B2
C286 CERSMT_1206 7B1
C287 CERSMT_1206 7B2
C288 CERSMT_1206 7B2
C289 CERSMT_1206 7C3
C290 CERSMT_1206 7B1
C291 CERSMT_1206 7B2
C292 CERSMT_1206 7C3
C293 CERSMT_1206 6B2
C294 CERSMT_1206 7B2
C295 CERSMT_1206 7B2
C296 CERSMT_1206 6C2
C297 CERSMT_1206 4B8
C298 CERSMT_1206 6B3
C299 CERSMT_1206 6B3
C300 CERSMT_1206 6C2
C301 CERSMT_1206 6B2
C302 CERSMT_1206 7C2
C303 CERSMT_1206 1B2
C304 CERSMT_1206 7D2
C305 CERSMT_1206 7C2
C306 CERSMT_1206 6D4
C307 CERSMT_1206 6D4
C308 CERSMT_1206 7C2
C309 CERSMT_1206 7C2
C310 CERSMT_1206 6C4
C311 CERSMT_1206 6D4
C312 CERSMT_1206 6C3
C313 CERSMT_1206 6B7
C314 CERSMT_1206 6C7
C315 CERSMT_1206 7B2
C316 CERSMT_1206 7B2
C317 CERSMT_1206 7B3
C318 CERSMT_1206 7D2
C319 CERSMT_1206 7C2
C320 CERSMT_1206 6A7
C321 CERSMT_1206 6B7
C322 CERSMT_1206 6B3
C323 CERSMT_1206 7C2
C324 CERSMT_1206 7B2
C325 CERSMT_1206 7C2
C326 CERSMT_1206 6A5
C327 CERSMT_1206 6A6
C328 CERSMT_1206 6A5
C329 CERSMT_1206 6A6
C330 CERSMT_1206 6D7
C331 CERSMT_1206 6C7
C332 CERSMT_1206 7B1
C333 CERSMT_1206 6A6
C334 CERSMT_1206 7B3
C335 CERSMT_1206 6A4
C336 CERSMT_1206 2A1
C337 CERSMT_1206 6A5
C338 CERSMT_1206 6A5
C339 CERSMT_1206 6D7
C340 CERSMT_1206 6C7
C341 CERSMT_1206 6A5
C342 CERSMT_1206 6A5
C343 CERSMT_1206 6A5
C344 CERSMT_1206 6D1
C345 CERSMT_1206 6A5
C346 CERSMT_1206 6A5
C347 CERSMT_1206 6B4
C348 CERSMT_1206 6D1
C349 CERSMT_1206 6B4
CR1 DIO_SMT_BAV99 8A6
CR2 SRGAR_5V_55400215 5B1 8A5 8B6
CR3 SRGAR_5V_55400215 5B3
CR4 SCHOTTKY_SMT_BAT54C 4B2
CR5 SRGAR_5V_55400215 5B3
CR6 SRGAR_5V_55400215 5A7
CR7 SRGAR_5V_55400215 5A7
CR8 SCHOTTKY_SMT_BAT54C 6A6
CR9 DIO_SMT_BAV99 4D7
CR10 SRGAR_5V_55400215 5A7
CR11 SRGAR_24V_55400216 5C2
CR12 SRGAR_12V_55400217 6B1 6B1 6C1
CR13 SCHOTTKY_SMT_BAT54C 1C8
CR14 DIO_SMT_BAV99 6A7
CR15 DIO_SMT_BAV99 6A8
CR16 SRGAR_5V_55400215 3B2
DS1 LED4_67480200 5A2
DS2 LED4_67480200 5A2
DS3 LED4_67480200 5A2
DS4 LED4_67480200 5B2
DS5 LED4_67480200 5B2
DS6 LED_RA_67599204 4C6
E1 JMPST_2X10_90012602 5B3
E2 JMPST_1X3_90012601 2C4
E3 JMPST_1X2_90012601 4D5
E4 JMPST_2X4_90012602 4B5
E5 JMPST_2X4_90012602 4B5
E6 JMPST_1X2_90012601 1C8
E8 JMPST_1X2_90012601 4B8
E9 JMPST_1X2_90012601 4C2
E10 JMPST_1X2_90012601 3B3
E11 JMPST_1X2_90012601 4A2
E12 JMPST_2X4_90012602 4C5
E13 JMPST_2X4_90012602 4B5
F1 POLYSWITCH 8B7
FL1 EMI_FLTR_43600000 4B8
FL2 EMI_FLTR_43600000 2B5
FL3 EMI_FLTR_43600000 7B3
FL4 EMI_FLTR_43600000 7D3
FL5 EMI_FLTR_43600000 2A2
FL6 EMI_FLTR_43600000 8B8
FL7 EMI_FLTR_43600000 7C3
J1 PC104NST_2X20_51407303_F 3B7
J2 PC104NST_2X32_51407301_F 3D7
J5 DSUB_9_51109723 2D1
K1 RLYSPST_5DC_72920334 4D7
MISC1 ADDONS 1D2
MISC2 ADDONS 1D2
MISC3 ADDONS 1D2
MISC4 ADDONS 1D2
MISC5 ADDONS 1C2
MISC8 ADDONS 1C2
MISC9 ADDONS 1C2
MISC??? ADDONS 1C2
P1 CONN_EDGE_1T0120 2A1 3B1 4B2 4B2 4B8 4B8 4D6
5A8 5A8 5A8 5A8 5A8 5B1 5B8 5B8
5C1 5C1 5C1 5C1 5D1 5D1 5D1 6A8 6A8
6A8 6B1 6B8 6B8 6C1 6C6 6C8 6C8 6D6
6D8 7A3 7A4 7A4 7B4 7B4 7B4 7B4 7B6
7B6 7C3 7C3 7D3 8A4 8A8 8A8 8B8 8B8
8C8 8C8 8D8
P4 HDBKST_2X5_90012602 2B1
Q1 IRLD014 5B2
Q2 MMBT3904 4D7
Q3 MMBT3904 4D7
Q4 MMBT3906 4D7
R1 RES10SIP9X 5B7
R2 RES10SIP9X 5B7
R3 RESSMT_1206 1B3
R4 RESMF1_4W 4C6
R5 RESSMT_1206 5C4
R6 RES10SIP9X 2B6
R7 RESSMT_1206 5B5
R8 RESSMT_1206 3A5
R9 RES10SIP9X 4B5
R10 RESSMT_1206 8A6
R11 RESSMT_1206 8B8
R12 RESSMT_1206 8B7
R13 RESSMT_1206 8A8
R14 RESSMT_1206 8A7
R15 RES10SIP9X 2B7
R16 RESSMT_1206 8A8
R17 RESSMT_1206 8B8
R18 RESSMT_1206 4B1
R19 RESSMT_1206 4B1
R20 RESSMT_1206 4B2
R21 RESSMT_1206 5D2
R22 RESSMT_1206 4D7
R23 RES10SIP9X 5D1
R24 RESSMT_1206 4D7
R25 RESSMT_1206 4D7
R26 RESSMT_1206 6A6
R27 RESSMT_1206 3C5
R28 RESSMT_1206 4D7
R29 RESSMT_1206 6C1
R30 RESSMT_1206 6B1
R31 RESSMT_1206 6B8
R32 RESSMT_1206 6C1
R33 RESSMT_1206 6B8
R34 RESSMT_1206 6D4
R35 RESSMT_1206 6C5
R36 RESSMT_1206 6C4
R37 RESSMT_1206 6D4
R38 RESSMT_1206 6D5
R39 RESSMT_1206 6D5
R40 RESSMT_1206 1C8
R41 RESSMT_1206 6C4
R42 RESSMT_1206 6C5
R43 RESSMT_1206 6D5
R44 RESSMT_1206 6C5

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |

SCALE: | SHEET 13 OF 15

05-017-9/93

| | |
|---|---|
| R45 | RESSMT_1206 6D5 |
| R46 | RESSMT_1206 6C5 |
| R47 | RESSMT_1206 6D5 |
| R48 | RESSMT_1206 1C8 |
| R49 | RESSMT_1206 6C5 |
| R50 | RESSMT_1206 6D5 |
| R51 | RESSMT_1206 6C5 |
| R52 | RESSMT_1206 6D5 |
| R53 | RESSMT_1206 6C5 |
| R54 | RESSMT_1206 6D5 |
| R55 | RESSMT_1206 6C5 |
| R56 | RESSMT_1206 6B7 |
| R57 | RESSMT_1206 6A7 |
| R58 | RESSMT_1206 6A6 |
| R59 | RESSMT_1206 6B7 |
| R60 | RESSMT_1206 6B7 |
| R61 | RESSMT_1206 6B8 |
| R62 | RESSMT_1206 6B7 |
| R63 | RESSMT_1206 6A8 |
| R64 | RESSMT_1206 6B7 |
| R65 | RESSMT_1206 6C7 |
| R66 | RESSMT_1206 6B7 |
| R67 | RESSMT_1206 6A8 |
| R68 | RESSMT_1206 6B8 |
| R69 | RESSMT_1206 6B8 |
| R70 | RESSMT_1206 6B8 |
| R71 | RESSMT_1206 6B8 |
| R72 | RESSMT_1206 6C8 |
| R73 | RESSMT_1206 4C2 |
| R74 | RESSMT_1206 6B7 |
| R75 | RESSMT_1206 6C7 |
| R76 | RESSMT_1206 6D7 |
| R77 | RESSMT_1206 8D7 |
| R78 | RESSMT_1206 6C7 |
| R79 | RESSMT_1206 6A6 |
| R80 | RESSMT_1206 6D7 |
| R81 | RESSMT_1206 6D7 |
| R82 | RESSMT_1206 6D7 |
| R83 | RESSMT_1206 6C7 |
| R84 | RESSMT_1206 6C8 |
| R85 | RESSMT_1206 6C7 |
| R86 | RESSMT_1206 6D7 |
| R87 | RESSMT_1206 6D7 |
| R88 | RESSMT_1206 6C7 |
| R89 | RESSMT_1206 6C7 |
| R90 | RESMF1_4W 4B8 |
| R91 | RESSMT_1206 6D7 |
| R92 | RESSMT_1206 6C8 |
| R93 | RESSMT_1206 6D8 |
| R94 | RESSMT_1206 6C8 |
| R95 | RESSMT_1206 3C2 |
| R96 | RESSMT_1206 6D7 |
| R97 | RESSMT_1206 6C8 |
| R98 | RESSMT_1206 3C2 |
| R99 | RESSMT_1206 6D8 |
| R100 | RESSMT_1206 6C7 |
| R101 | RESSMT_1206 3C2 |
| R102 | RESSMT_1206 6D2 |
| R103 | RESSMT_1206 4B7 |
| R104 | RESSMT_1206 8D7 |
| R105 | RESSMT_1206 8C7 |
| R106 | RESSMT_1206 8C6 |
| R107 | RESSMT_1206 8D7 |
| R108 | RESSMT_1206 8C7 |
| R109 | RESSMT_1206 8D7 |
| R110 | RESSMT_1206 8D7 |
| R111 | RESSMT_1206 8D7 |
| R112 | RESSMT_1206 8D8 |
| R113 | RESSMT_1206 8D8 |
| R114 | RESSMT_1206 8C8 |
| R115 | RESSMT_1206 8C8 |
| R116 | RESSMT_1206 8D8 |
| R117 | RESSMT_1206 8D8 |

| | |
|---|---|
| R118 | RESSMT_1206 8D8 |
| R119 | RESSMT_1206 8C8 |
| R120 | RESSMT_1206 8A8 |
| R121 | RES10SIP9X 4C5 |
| R125 | RESSMT_1206 8A8 |
| R126 | RESSMT_1206 8A8 |
| R200 | RESSMT_1206 2D2 |
| R201 | RESSMT_1206 5A2 |
| R202 | RESSMT_1206 5A8 |
| R203 | RESSMT_1206 2D2 |
| R204 | RESSMT_1206 5B2 |
| R205 | RESSMT_1206 5A8 |
| R206 | RESSMT_1206 5A8 |
| R207 | RESSMT_1206 5A8 |
| R208 | RESSMT_1206 5A8 |
| R209 | RESSMT_1206 5B8 |
| R210 | RESSMT_1206 5B8 |
| R211 | RESSMT_1206 5B8 |
| R212 | RESSMT_1206 5B8 |
| R213 | RESSMT_1206 3B8 |
| R214 | RESSMT_1206 3B8 |
| R215 | RESSMT_1206 5B8 |
| R216 | RESSMT_1206 2D2 |
| R217 | RESSMT_1206 2D2 |
| R218 | RESSMT_1206 4D3 |
| R219 | RESSMT_1206 3D6 |
| R220 | RESSMT_1206 3B8 |
| R221 | RESSMT_1206 3B8 |
| R222 | RESSMT_1206 3D6 |
| R223 | RESSMT_1206 3C8 |
| R224 | RESSMT_1206 3D6 |
| R225 | RESSMT_1206 3D6 |
| R226 | RESSMT_1206 4B3 |
| R227 | RESSMT_1206 8C5 |
| R228 | RESSMT_1206 3B8 |
| R230 | RESSMT_1206 8A8 |
| R231 | RESSMT_1206 8A7 |
| R232 | RESSMT_1206 8B7 |
| R233 | RESSMT_1206 8A7 |
| R234 | RESSMT_1206 1C3 |
| R235 | RESSMT_1206 1C3 |
| R236 | RESSMT_1206 1C3 |
| R237 | RESSMT_1206 2C4 |
| R238 | RESSMT_1206 1C3 |
| R239 | RESSMT_1206 2C8 |
| R240 | RESSMT_1206 3D4 |
| R241 | RESSMT_1206 1D4 |
| R242 | RESSMT_1206 1C3 |
| R243 | RESSMT_1206 1A7 |
| R244 | RESSMT_1206 1C3 |
| R245 | RESSMT_1206 1C3 |
| R246 | RESSMT_1206 1A7 |
| R247 | RESSMT_1206 2D8 |
| R248 | RESSMT_1206 1C3 |
| R249 | RESSMT_1206 1C3 |
| R250 | RESSMT_1206 1A7 |
| R251 | RESSMT_1206 1C3 |
| R252 | RESSMT_1206 1C3 |
| R253 | RESSMT_1206 1C7 |
| R254 | RESSMT_1206 3B8 |
| R255 | RESSMT_1206 1D4 |
| R256 | RESSMT_1206 1C3 |
| R257 | RESSMT_1206 1A7 |
| R258 | RESSMT_1206 5B2 |
| R259 | RESSMT_1206 2D8 |
| R260 | RESSMT_1206 1B3 |
| R261 | RESSMT_1206 1B3 |
| R262 | RESSMT_1206 2D8 |
| R263 | RESSMT_1206 1B3 |
| R264 | RESSMT_1206 1C8 |
| R265 | RESSMT_1206 5D2 |
| R266 | RESSMT_1206 7B7 |
| R267 | RESSMT_1206 1B3 |

| | |
|---|---|
| R268 | RESSMT_1206 1D4 |
| R269 | RESSMT_1206 5D2 |
| R270 | RESSMT_1206 7B7 |
| R271 | RESSMT_1206 2A4 |
| R272 | RESSMT_1206 4D5 |
| R273 | RESSMT_1206 2A3 |
| R274 | RESSMT_1206 2A4 |
| R275 | RESSMT_1206 2A3 |
| R276 | RESSMT_1206 6B1 |
| R277 | RESSMT_1206 6B1 |
| R278 | RESSMT_1206 4A2 |
| R279 | RESSMT_1206 6B2 |
| R280 | RESSMT_1206 4B7 |
| R281 | RESSMT_1206 4B7 |
| R282 | RESSMT_1206 6C2 |
| R283 | RESSMT_1206 3B4 |
| R284 | RESSMT_1206 3B4 |
| R285 | RESSMT_1206 4B8 |
| R286 | RESSMT_1206 3C4 |
| R287 | RESSMT_1206 6C2 |
| R288 | RESSMT_1206 6B2 |
| R289 | RESSMT_1206 3C4 |
| R290 | RESSMT_1206 6D5 |
| R291 | RESSMT_1206 6D5 |
| R292 | RESSMT_1206 6C5 |
| R293 | RESSMT_1206 6D5 |
| R294 | RESSMT_1206 6B3 |
| R295 | RESSMT_1206 6B7 |
| R296 | RESSMT_1206 6C7 |
| R297 | RESSMT_1206 4C2 |
| R298 | RESSMT_1206 6A7 |
| R299 | RESSMT_1206 6B7 |
| R300 | RESSMT_1206 5C2 |
| R301 | RESSMT_1206 6A4 |
| R302 | RESSMT_1206 6D7 |
| R303 | RESSMT_1206 6C7 |
| R304 | RESSMT_1206 6A4 |
| R305 | RESSMT_1206 3C2 |
| R306 | RESSMT_1206 6D7 |
| R307 | RESSMT_1206 6C7 |
| R308 | RESSMT_1206 6D1 |
| R309 | RESSMT_1206 6A7 |
| R310 | RESSMT_1206 5C2 |
| R311 | RESSMT_1206 6D1 |
| R312 | RESSMT_1206 5C2 |
| R313 | RESSMT_1206 5C2 |
| R314 | RESSMT_1206 5C2 |
| R315 | RESSMT_1206 5C2 |
| R316 | RESSMT_1206 7B7 |
| R317 | RESSMT_1206 7B7 |
| R318 | RESSMT_1206 7B7 |
| R319 | RESSMT_1206 8A7 |
| S1 | SW_PB_NO_71219986 4B2 |
| TP1 | TEST_POINT_COLOR 7B3 |
| TP2 | TEST_POINT_COLOR 7A3 |
| TP3 | TEST_POINT_COLOR 7A3 |
| TP4 | TEST_POINT_COLOR 3D4 |
| TP5 | TEST_POINT_COLOR 5D2 |
| TP6 | TEST_POINT_COLOR 3D4 |
| TP7 | TEST_POINT_COLOR 4A2 |
| TP8 | TEST_POINT_COLOR 5D2 |
| TP9 | TEST_POINT_COLOR 5D2 |
| TP10 | TEST_POINT_COLOR 2D4 |
| TP11 | TEST_POINT_COLOR 4B1 |
| TP12 | TEST_POINT_COLOR 1B8 |
| TP13 | TEST_POINT_COLOR 5D2 |
| TP14 | TEST_POINT_COLOR 1B8 |
| TP15 | TEST_POINT_COLOR 4B6 |
| TP16 | TEST_POINT_COLOR 7A2 |
| TP17 | TEST_POINT_COLOR 2B8 |
| TP18 | TEST_POINT_COLOR 4B7 |
| TP19 | TEST_POINT_COLOR 4A2 |
| TP20 | TEST_POINT_COLOR 6B3 |

| | |
|---|---|
| TP21 | TEST_POINT_COLOR 3C4 |
| TP22 | TEST_POINT_COLOR 7A3 |
| TP23 | TEST_POINT_COLOR 7C2 |
| TP24 | TEST_POINT_COLOR 4C1 |
| TP25 | TEST_POINT_COLOR 7D2 |
| TP26 | TEST_POINT_COLOR 3C5 |
| TP27 | TEST_POINT_COLOR 7D2 |
| TP28 | TEST_POINT_COLOR 3C1 |
| TP29 | TEST_POINT_COLOR 3C4 |
| TP30 | TEST_POINT_COLOR 6A4 |
| TP31 | TEST_POINT_COLOR 7C2 |
| TP32 | TEST_POINT_COLOR 3C1 |
| TP33 | TEST_POINT_COLOR 3C1 |
| TP34 | TEST_POINT_COLOR 2A1 |
| TP35 | TEST_POINT_COLOR 4B8 |
| TP36 | TEST_POINT_COLOR 6C2 |
| TP37 | TEST_POINT_COLOR 4B8 |
| TP38 | TEST_POINT_COLOR 3C1 |
| TP39 | TEST_POINT_COLOR 6A3 |
| U1 | 74ABT16374 5B4 |
| U2 | MAX3222 2D2 |
| U3 | AM29F400 4D2 |
| U4 | AM29F400 4D3 |
| U5 | TIL311 4B3 |
| U6 | TIL311 4B3 |
| U7 | 74ABT574 4B3 |
| U8 | 74ABT541 4B4 |
| U9 | 74ABT541 8C4 |
| U10 | 74ACT14 8A5 8A6 8A7 8A7 8B7 |
| U12 | DIMM_1MX32_90119601 2D6 |
| U13 | OPTO_I_0661 8A8 |
| U14 | OPTO_I_0661 8B8 |
| U15 | OPTO_I_0661 8B8 |
| U16 | 27C010_120 2D4 |
| U17 | 74ABT16244 2C8 |
| U18 | 74ABT16244 2D8 |
| U19 | MAX1232 4B1 |
| U20 | ULN2003 5D2 |
| U22 | 74ABT16374 5C4 |
| U23 | 74ABT16244 5D4 |
| U24 | 74ACT14 4B6 4D8 5D2 5D2 5D3 5D3 |
| U25 | 74LCX16245 2B8 |
| U26 | 74ABT16373 6D3 |
| U27 | 74ABT16244 6A2 |
| U28 | 27C256_150 4D4 |
| U29 | 74ACT14 3B2 4C7 5B2 6A6 7B7 |
| U30 | COM20020 4B7 |
| U31 | 82C54 3C5 |
| U32 | 82C54 3B5 |
| U33 | AD7547 6C3 |
| U34 | LF412C 6C2 |
| U35 | LF412C 6B2 |
| U36 | AD680 6B4 |
| U38 | LF412C 6C5 |
| U39 | LF412C 6D5 |
| U40 | AD7547 6C3 |
| U41 | LM2940_HORIZ 7D2 |
| U42 | 74ABT16244 5B6 |
| U43 | LF412C 6B7 |
| U44 | LF412C 6C7 |
| U45 | ADM485 4C1 |
| U46 | ADS774 6A3 |
| U47 | LM2990_HORIZ 7C2 |
| U48 | ADG426 6B5 |
| U49 | OP177 6A4 |
| U50 | VREG_3X3V_62501971 2A2 |
| U51 | LF412C 6D7 |
| U52 | LF412C 6C7 |
| U53 | 74ABT541 3C2 |
| U54 | OP27 6D1 |
| U55 | ADM485 4B7 |
| U56 | OPTO_I_0661 8D7 |
| U57 | OPTO_I_0661 8D7 |

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: | | SHEET 14 OF 15 |

05-017-9-93

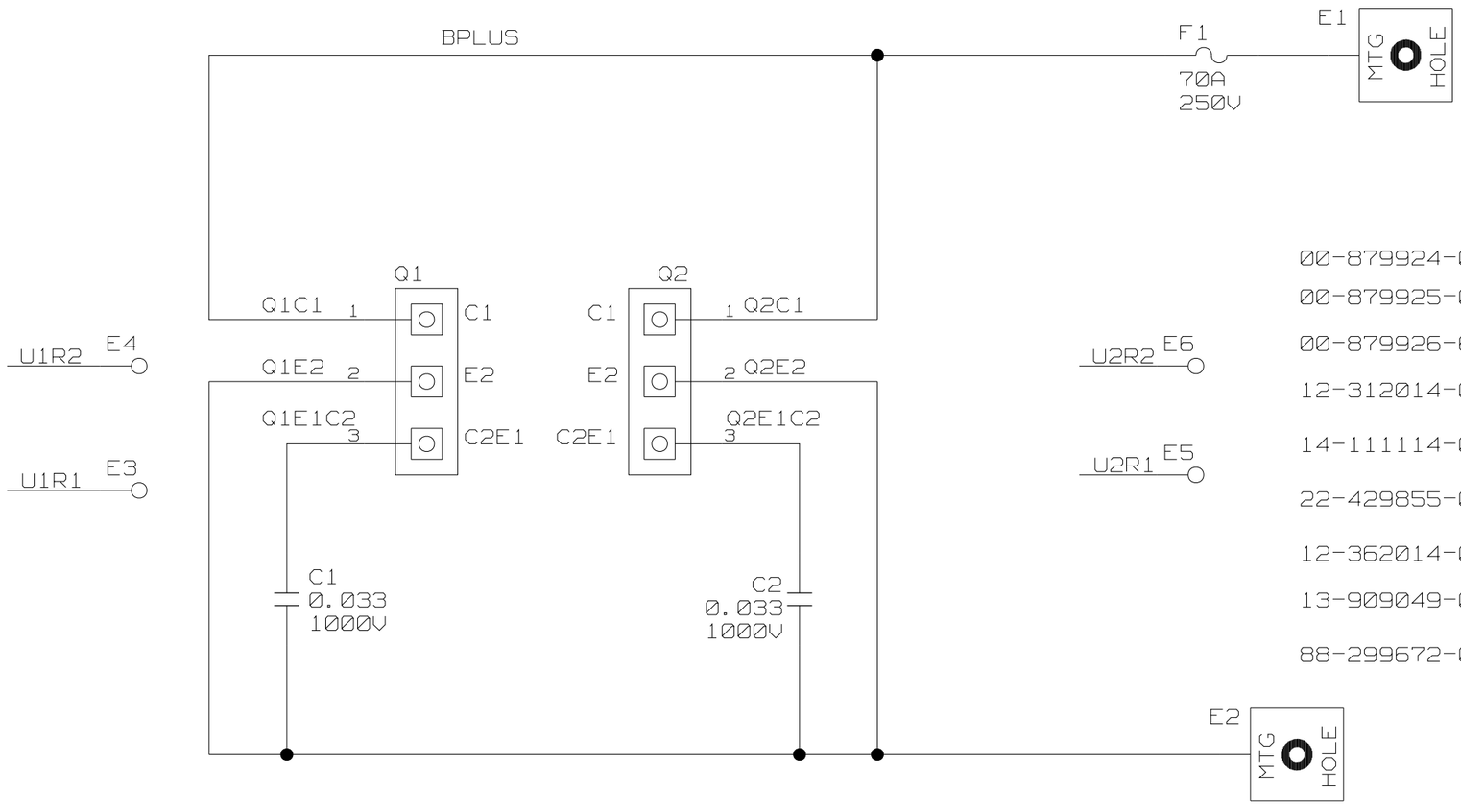
| | |
|---|---|
| U58 | OPTO_I_0661 8D7 |
| U59 | 74ACT14 8C7 8C7 8D7 |
| U60 | OPTO_I_0661 8C7 |
| U61 | 74ACT14 7B7 8A7 8C7 |
| U62 | 74ABT541 8C4 |
| U63 | OPTO_I_0661 8A8 |
| U64 | 74ABT541 4C4 |
| VR2 | AD587 6D2 |
| XE2 | SHORT_PC_X1 2C4 |
| XE9 | SHORT_PC_X1 4C1 |
| XE10 | SHORT_PC_X1 3B3 |
| XE11 | SHORT_PC_X1 4A2 |
| XU50 | HTSNK_TO220HU_66899846 2A1 |
| Y1 | OSC_8P_EN_VCC_10TTL 4B8 |
| Y2 | CRYSTAL 1C7 |

OEC MEDICAL SYSTEMS, INC.

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-879803 | C |
| SCALE: | | SHEET 15 OF 15 |

| 5 | 4 | B | 00-879924 | 2 | 1 |
|---|---|---|---|---|---|

| Ⓜ | ENGIN. REV 3 | REVISIONS | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MFG PER ECO BA34 | 4-2-98 | MAHON |
| A1 | REVISED PER ECO BK90 | 8-31-98 | C. BALL |
| A2 | REVISED PER ECO CG97 | 1-28-00 | C. BALL |




REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C2 | |
| E6 | |
| F1 | |
| Q2 | |
| R4 | R1-R4 |

| | | |
|---|---|---|
| 00-879924-01 | ◇ | SCH, PCB, IGBT SNUBBER |
| 00-879925-01 | ◇ | PCB, IGBT SNUBBER, A/F, 9800 |
| 00-879926-60 | ◇ | SPEC, PERF, PCB, IGBT SNUB |
| 12-312014-06 | ◇ 3 | SCR, NA, SKT, HEX, 1/4-20, 3/8, SST |
| 14-111114-00 | ◇ 4 | WSHR, PL, 1/4, SST, NA, ID. 265, OD. 500 |
| 22-429855-00 | ◇ 2 | STNDF, HEX, F, 1/4-20, .625L, BR |
| 12-362014-06 | ◇ | SCR, NA, BTN, HEX, 1/4-20, 3/8, SST |
| 13-909049-00 | ◇ 2 | NUT, SLFCLNC, INSRT, 8-32, ST |
| 88-299672-00 | ◇ | ADH, SLT, SIL, TB, 2.8OZ, RTV162 WHT |

-02 SHOWN
-01 INACTIVE

DRAWING
LAST_MODIFIED=Mon Jan 31 10:29:04 2000
ACTIVE_BOMS=-02

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|

PART LIST

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK.
IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND.
BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | | | | |
|---|---|---|---|---|---|
| | | CONTRACT NO. | | APPROVALS | DATE |
| 00-879000 | 9800 | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | MATERIAL | DRAWN M. WILLCOCKS | 1/06/97 |
| 00-879926 | 9800 | FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | FINISH | CHECKED L. ANDERTON | 1/24/97 |
| NEXT ASSY | USED ON | | | ENGINEERING M. WILLCOCKS | 1/24/97 |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE
SCH, PCB, IGBT SNUBBER

| SIZE | DWG. NO. | REV |
|---|---|---|
| B | 00-879924 | A2 |

SCALE: | SHEET:

05-012-9/93

| 5 | 4 | 2 | 1 |
|---|---|---|---|

| DWG. NO. | SH | REV |
|---|---|---|
| 00-880304 | 1 | C |

ENGRG REV 3.1

EDR 01319

| REV | DESCRIPTION | DATE | APPROVED |
|---|---|---|---|
| A | REL TO MFG PER ECO AU85 | 01-30-98 | C. BALL |
| A1 | REVISED PER ECO BE58 | 05-26-98 | C. BALL |
| A2 | REVISED PER ECO BH18 | 07-20-98 | C. BALL |
| B | REVISED PER ECO BH72A | 08-09-98 | C. BALL |
| C | REVISED PER ECO BY74 | 5-14-99 | C. BALL |

| REF DESIGNATIONS | DEVICE | GND | +12V | +5V | UNUSED |
|---|---|---|---|---|---|
| U1,3,5,6 | TL082 | SHOWN | SHOWN | | |
| U4 | LM393 | SHOWN | SHOWN | | |
| U2 | ML4812 | SHOWN | | SHOWN | |
| U7 | LM3914 | SHOWN | | | |
| U8 | LM3915 | SHOWN | | | |
| U9 | AD592 | | | | |

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C47 | |
| CR26 | |
| DS4 | |
| L2 | |
| P3 | |
| Q21 | Q9 |
| R90 | R33 |
| | |
| T2 | |
| TP9 | |
| U9 | |
| VR2 | |
| | |

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
1.1. RESISTOR VALUES ARE IN OHMS, ±5%, 1/4 WATT.
1.2. CAPACITOR VALUES ARE IN MICROFARADS (UF).
1.3. INDUCTOR VALUES ARE IN MICROHENRIES (UH)

-02 SHOWN
-01 INACTIVE

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC-DIASONICS, INC. IT IS LOANED TO YOU ONLY FOR OEC-DIASONICS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC-DIASONICS UPON DEMAND.

BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESSION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC-DIASONICS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | |
|---|---|
| 00-880306 | 9800 |
| NEXT ASSY | USED ON |
| APPLICATION | |

CONTRACT NO.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS: ±---
DECIMALS: .XX±---
.XXX±---
ANGLE: ±---

MATERIAL ---

FINISH ---

DO NOT SCALE DRAWING

| | APPROVED | DATE |
|---|---|---|
| DRAWN | D. B. GRAVES | 01/29/97 |
| CHECKED | N. NEWBOLD | 03/04/97 |
| ENGINEERING | B. WALKER | 03/04/97 |
| ISSUED | | |

OEC MEDICAL SYSTEMS, INC.

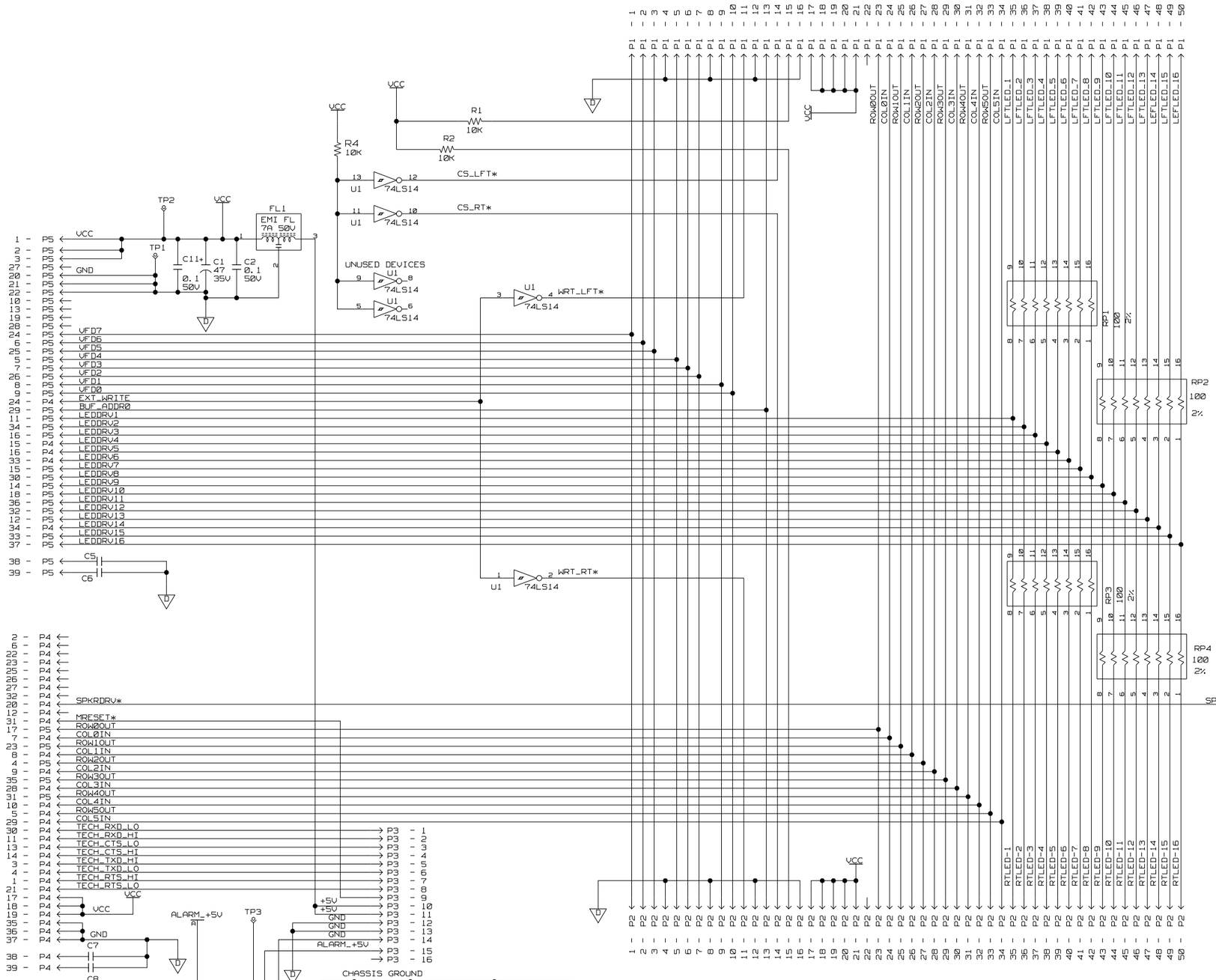
DWG TITLE
SCH,PCB,BATTERY CHARGER 9800

| SIZE | DWG NO. | REV |
|---|---|---|
| D | 00-880304 | C |

SCALE:NONE | EED3 | SHEET 1 OF 1

| DWG NO. | SHT | REV |
|---|---|---|
| 00-880322 | 1 | A.1 |

| (M) ENGIN. REV. 3 REVISIONS | | | EDR 01346 |
|---|---|---|---|
| REV | DESCRIPTION | DATE | APPROVED |
| A | RELEASED TO MANUFACTURING PER ECO AV79 | 2-12-98 | C. BALL |
| A.1 | REVISED PER ECO BA79 | | |
| | | | |




NOTES:

1. UNLESS OTHERWISE SPECIFIED
   -ALL RESISTORS ARE IN OHMS, 1/4W, 5%
   -ALL CAPACITORS ARE IN MICROFARADS, 50V
2. C5-C10 ARE FOR EMI PURPOSES AND ARE NOT NORMALLY STUFFED WITH CAPACITORS.

| REF DESIGNATIONS | DEVICE | GND | | +5V | UNUSED |
|---|---|---|---|---|---|
| U1 | 74LS14 | 7 | | 14 | U1-5,9 |

REFERENCE DESIGNATIONS

| HIGHEST | UNUSED |
|---|---|
| C11 | |
| E2 | |
| FL1 | |
| LS1 | |
| R4 | |
| P7 | |
| TP3 | |
| RP4 | |
| U1 | U1-5,9 |

-01 SHOWN

| ITEM | QTY. | PART OR IDENT NO. | DESCRIPTION |
|---|---|---|---|
| | | PARTS LIST | |

THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OEC MEDICAL SYSTEMS, INC. IT IS LOANED TO YOU ONLY FOR OEC MEDICAL SYSTEMS WORK. IT IS NOT TO BE COPIED OR IN ANY WAY DISCLOSED TO THIRD PARTIES. IT SHALL BE RETURNED TO OEC MEDICAL SYSTEMS UPON DEMAND. BY ACCEPTANCE, THOSE WHO HAVE THIS DOCUMENT IN THEIR POSSESION AGREE TO THESE RESTRICTIONS AND SHALL BE SUBJECT TO LEGAL ACTION BY OEC MEDICAL SYSTEMS FOR ALL LOSS OR DAMAGE ARISING FROM BREACH THEREOF.

| | | CONTRACT NO. | | APPROVED | DATE |
|---|---|---|---|---|---|
| | | UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: | MATERIAL | DRAWN K MAHON | 02/11/97 |
| 00-880324 | 9800 | FRACTIONS: +/- DECIMALS: .XX+/- .XXX+/- ANGLES: +/- | FINISH | CHECKED B. WALKER | 02/19/97 |
| NEXT ASSEMBLY | USED ON | | | ENGINEERING K KOONS | 02/19/97 |
| APPLICATION | | DO NOT SCALE DRAWING | | APPROVED | |

OEC MEDICAL SYSTEMS, INC.

DWG TITLE: CONTROL PANEL PROCESSOR I/O SCHEMATIC DIAGRAM

SIZE D | DWG NO. 00-880322 | REV A.1

SCALE: NONE | SHEET 1 OF 1

05-016-9/93